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NATIONAL SURVEY OF THE ODOR PROBLEM

Phase I

of a Study of the Social and Economic Impact of Odors

APPENDIX

Prepared for the

NATIONAL AIR POLLUTION CONTROL ADMINISTRATION

by

COPLEY INTERNATIONAL CORPORATION

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COLOR ILLUSTRATIONS REPRODUCED
IN BLACK AND WHITE

360

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16. Abstracts The intent was the generation of information relative to the basic definition, identification, and assessment of the national odor problem. Three factors - odor producing potential of industrial odorant sources, atmospheric vulnerability, and size of population - were developed separately and then combined for an indication of the odor problem potential of each three digit postal zip code area in the nation. Local air pollution control agencies were surveyed to identify areas where they believe that significant odor problems exist. Within the principal cities of each of seven representative metropolitan areas, two-day technical field investigations and public opinion surveys were conducted. Sensory evaluations of odor were also performed in Philadelphia, Pennsylvania. Odor problem potential exists in most metropolitan areas in the United States. But, primarily because of meteorological factors, the probability of encountering odor problems is greatest in the Appalachian and California Coastal metropolitan areas. A large number of residents - perhaps as many as 25 million - perceive odors as problems and desire some form of abatement. The results of the mail survey and personal interviews of local air pollution control agencies indicated that when concentrations of air pollutants can be related to amounts of property damage and/or ill health, abatement criteria (e.g., minimum levels of

(continued on back of page)

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Temperature inversions
Populations
Local government
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Public opinion
Odor detection
Smell
Tanning materials
Refineries
Chemical plants
Water pollution
Sewage treatment
Grain elevators
Tall oil

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TABLE OF CONTENTS

APPENDIX

A	IDENTIFICATION OF ODOR PRODUCING AIR POLLUTANTS
B	COMBINATIONS OF THREE-DIGIT ZIP CODES INCLUDED IN METROPOLITAN AREAS
C	THREE-DIGIT ZIP CODE AREAS OF THE UNITED STATES
D	SUMMARY OF SURVEY RESULTS FROM QUESTIONNAIRES RECEIVED FROM 100 LOCAL AIR POLLUTION CONTROL AGENCIES
E	LOCATION OF FIELD INVESTIGATION SITES AND PUBLIC OPINION SURVEY AREAS
F	SENSORY EVALUATION OF ODORS DATA
G	FINDINGS OF PUBLIC OPINION SURVEY OF RESIDENTS — SUMMARY OF TEST AND CONTROL GROUPS FOR ALL CITIES COMBINED
H	FINDINGS OF PUBLIC OPINION SURVEY OF RESIDENTS — SUMMARY, BY INCOME, OF TEST AND CONTROL GROUPS FOR ALL CITIES COMBINED
I	FINDINGS OF PUBLIC OPINION SURVEY OF RESIDENTS — SUMMARY, BY OCCUPATION, OF TEST AND CONTROL GROUPS FOR ALL CITIES COMBINED
J	FINDINGS OF PUBLIC OPINION SURVEY OF RESIDENTS — SUMMARY, BY EDUCATION, OF TEST AND CONTROL GROUPS FOR ALL CITIES COMBINED
K	FINDINGS OF PUBLIC OPINION SURVEY OF RESIDENTS — SUMMARY, BY AGE, OF TEST AND CONTROL GROUPS FOR ALL CITIES COMBINED
L	FINDINGS OF PUBLIC OPINION SURVEY OF BUSINESSMEN — SUMMARY OF TEST AND CONTROL GROUPS FOR ALL CITIES COMBINED

TABLE OF CONTENTS (Cont'd)

APPENDIX

M — FINDINGS OF PUBLIC OPINION SURVEY OF RESIDENTS — SUMMARY OF TEST AND CONTROL GROUPS BY INDIVIDUAL CITIES

N — PUBLIC OPINION SURVEY QUESTIONNAIRES AND INSTRUCTIONS TO INTERVIEWERS

APPENDIX A

IDENTIFICATION OF ODOR PROCUDING AIR POLLUTANTS

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Table A-I

MAJOR ODOR PRODUCING AIR POLLUTANTS,
OLFACTORY THRESHOLDS AND RELATED DATA

Category	Class	IUPAC Name	Common Name*	Formula	Odor	Mol. Wt.	Threshold	
							ppm	mg/l**
Sulfur Compounds	Sulfur Oxides	Sulphur Dioxide	-	SO_2	Pungent	64	30×10^{-1}	79×10^{-4}
	Sulfides	Hydrogen Sulfide	-	H_2S	Rotten eggs	34	11×10^{-4}	15×10^{-7}
		Carbon Disulphide	-	CS_2	Rotten	76	8×10^{-1}	23×10^{-4}
	Mercaptans	Methyl Mercaptan	-	CH_3-SH	Decayed Cabbage	48	11×10^{-4}	22×10^{-7}
		Ethyl Mercaptan	-	C_2H_5-SH	Decayed Cabbage	62	16×10^{-6}	4×10^{-8}
		Propyl Mercaptan	-	C_3H_7-SH	Unpleasant	76	75×10^{-6}	23×10^{-8}
		Allyl Mercaptan	-	CH_2=CH-CH_2-SH	Garlic	74	5×10^{-5}	15×10^{-8}
		Benzyl Mercaptan	-	$C_6H_5CH_2SH$	Unpleasant	94	4×10^{-2}	2×10^{-4}
	Thioethers	Di methyl Sulfide	-	$(CH_3)_2S$	Decayed Cabbage	62	2×10^{-2}	51×10^{-6}
		Diethyl Sulfide	-	$(C_2H_5)_2S$	Foul, Garlic	90	25×10^{-5}	92×10^{-8}
		Allyl Disulfide	-	$(CH_2$=$CH\,CH_2S)_2$	Garlic	146	1×10^{-4}	6×10^{-8}

Table A-I (Cont'd)

Category	Class	IUPAC Name	Common Name*	Formula	Odor	Mol. Wt.	Threshold	
							ppm	mg/l**
Nitrogen Compounds	Anorganic	Ammonia	-	NH_3	Pungent	17	37×10^{-3}	26×10^{-6}
	Aliphatic Amines	Dimethyl Amine	-	$(CH_3)_2NH$	Fishy	45	6×10^{-1}	11×10^{-9}
		Trimethyl Amine	-	$(CH_3)_3N$	Fishy-ammonical	59	4×10^{-1}	96×10^{-4}
	Aromatic Amines	Trinitro-3-butylxylene	Musk		Musk	295	42×10^{-8}	5×10^{-9}
	Heterocyclic Amines	Pyridine	-		Emphyreumatic	79	12×10^{-3}	40×10^{-6}
		Benzo(b)-pyrrole	Indole		Fecal	117	-	-
		3-methyl-indole	Skatole		Fecal	131	75×10^{-9}	4×10^{-6}
	Cyanides	Hydrogencyanide	-	HCN	Bitter Almonds	37	6×10^{-1}	1×10^{-3}
		Allylisocyanide	-	$CH_2{=}CH\,CH_2NC$	Sweet-repulsive (nauseating)	65	14×10^{-1}	4×10^{-3}
		Allylisothiocyanate	-	$CH_2{=}CH\,CH_2SNC$	Mustard oil (Nose & eye irritant)	83	5×10^{-1}	2×10^{-3}
Selenium Compounds	Selenides	Hydrogen Selenide	-	H_2Se	Putrid	81	3×10^{-1}	1×10^{-3}
	Mercaptans	Ethylseleno Mercaptan	-	$C_2H_5\,SeH$	Foul, Foetid	109	18×10^{-7}	8×10^{-9}
	Selenides	Diethyl Selenide	-	$(C_2H_5)_2Se$	Putrid (nauseating)	137	62×10^{-6}	35×10^{-8}

Table A-I (Cont'd)

Category	Class	IUPAC Name	Common Name*	Formula	Odor	Mol. Wt.	Threshold	
							ppm	mg/l**
Hydrocarbons, Alcohols and Derivatives, Organic Acids	Aliphatic hydrocarbon	2-butene	ß-butylene	$CH_3CH{=}CHCH_3$	Gas-house	56	240×10^{-1}	6×10^{-2}
		2-methylpropene	Isobutylene	$CH_2{=}C(CH_3)_2$	Gas-house	56	200×10^{-1}	5×10^{-2}
	Cyclic Alcohols	Phenol	-	C_6H_5OH	Emphyreumatic	94	3×10^{-1}	12×10^{-4}
	Aldehydes	Methanal	Formaldehyde	H_2CO	Pungent	30	-	-
		Ethanal	Acetaldehyde	CH_3CHO	Pungent	44	20×10^{-1}	4×10^{-3}
		Acrylaldehyde	Acrolein	$CH_2{=}CHCHO$	Burning fat	56	15×10^{-1}	35×10^{-4}
	Ketones	4-hydroxy-3-methoxygen-zaldehyde	Vanillin		Sweet-aromatic	152	22×10^{-9}	2×10^{-10}
		d-2-keto-1,7,7,-Trimethylnor-camphene	Camphor		Aromatic - earthy	151	16×10^{-1}	1×10^{-2}
	Organic Acids	Butanoic Acid	Butyric Acid	$CH_3CH_2CH_2COOH$	Rancid, Perspiration	88	28×10^{-5}	1×10^{-6}
		Pentanoic Acid	Valeric Acid	$CH_3CH_2CH_2CH_2COOH$	Body Odor	102	62×10^{-5}	26×10^{-6}
		Diacetyl	-	$(CH_3CO)_2$	Sweet Butter	85	25×10^{-3}	88×10^{-6}

Table A-I (Cont'd)

Category	Class	IUPAC Name	Common Name*	Formula	Odor	Mol. Wt.	Threshold	
							ppm	mg/l**
Halogen Compounds	Inorganic	Chlorine	-	Cl_2	Pungent	70	$1x10^{-2}$	$29x10^{-6}$
	Aliphatic halogens	Trichloroethylene	-	$CHCl=CCl_2$	Aromatic	132	$250x10^{-1}$	$135x10^{-3}$
		Triodomethane	Iodoform	CHI_3	Antiseptic	394	$37x10^{-5}$	$61x10^{-7}$
	Aromatic halogens	Benzyl Chloride	-	$C_6H_5CH_2Cl$	Aromatic Lacrimator	126.5	$4x10^{-1}$	$2x10^{-3}$
		Chloro-hydroxy-benzene	Chlorophenol		Medicinal	128.5	$3x10^{-2}$	$2x10^{-4}$
Misc.	Oxygen	Ozone	-	O_3	Irritating	48	$1x10^{-1}$	$20x10^{-5}$

* If different from IUPAC Name.

** Values apply @ 25°C and 760 mm Hg.

Source: W. Summer, Method of Air Deodorization (Amsterdam: Elsevier, 1963).

Table A-II

ODOROUS EMISSIONS FROM COMBUSTION

Category	Industry	Sulfur			Nitrogen			Hydrocarbons			
		SO_2	R-SH	Others	NH_3	Amines	Others	Hydro-carbons	R-COH	R-COOH	Halogens
Stationary Combustion	Power Plants, gas fired	x			x			x	x	x	
	oil fired	x			x			x	x	x	
	coal fired	x			x			x	x	x	
	Industrial Installations (Boilers, Space Heaters)										
	gas fired	x			x			x	x	x	
	oil fired	x			x			x	x	x	
	coal fired	x			x			x	x	x	
	Incinerators	x			x	x		x	x	x	
	Open Burning	x			x	x		x	x	x	
Mobile Combustion	Gasoline Engines, Cars	x			x			x	x	x	
	Aircraft	x			x			x	x	x	
	Diesel & Turbines, Cars	x			x			x	x	x	
	Jet Aircraft	x			x			x	x	x	
	Turbo Prop Aircraft	x			x			x	x	x	

Source: Arthur C. Stern, (ed.), Air Pollution, Vol. III (2nd ed.; New York: Academic Press, 1968).

Table A-III

ODOROUS EMISSIONS FROM INDUSTRIAL OPERATIONS

Category	Process	Sulfur			Nitrogen			Hydrocarbons			Others
		SO_2	R-SH	H_2S	NH_3	Amines	Others	Hydro-carbons	R-COH	R-COOH	
Pulp and Paper	Kraft Process Digestion	x	x	x	x				x		
	Washing	x	x	x							
	Evaporation	x	x	x	x				x		
	Recovery (Black liquor combustion)	x	x	x	x			x	x	x	
	Lime Kiln	x		x	x			x	x	x	
	Sulfate Pulping Process										
	Digestion	x	x	x	x			x	x	x	
	Recovery	x	x	x							
Printing								x			
Non-metallic Mineral Product Industries											
Coal industry	Mining ventilation gases		x	x	x			x	x	x	
	Thermal coal drying	x			x				x		
	Burning coal refuse piles	x	x	x	x			x	x	x	
Cement Production	Clinker production	x			x				x		HCl
Glass & Ceramics Manufacturing	Smelting Furnaces	x			x				x		HCl
Asphalt & Bituminous		x	x		x			x	x	x	
Iron and Steel Industry	Coke production	x	x	x	x			x	x	x	
	Filter process for ores	x	x	x	x				x		
	Blast furnaces (emissions generally recovered)	x	x	x	x			x	x	x	Fe_xO_y
	Steel Production, Bessemer converters	x			x			x	x		Fe_xO_y

Table A-III (Cont'd)

Category	Process	Sulfur			Nitrogen			Hydrocarbons			Others
		SO_2	R-SH	Others	NH_3	Amines	Others	Hydro-carbons	R-COH	R-COOH	
	Open hearth furnaces	x			x			x	x		Fe_xO_y
	Electric ore furnaces	x			x			x	x		Fe_xO_y
	Basic oxygen furnaces	x			x			x	x		Fe_xO_y
	Foundry Operations	x	x	x	x			x	x	x	
Non-ferrous Metallurgical Operations											
Copper	Roasting	x	x	x	x				x		X·Se*
	Converters	x	x	x	x				x		X·Se
Lead	Sautering	x	x	x	x				x		X·Se
Titanium		x	x	x	x				x		
Zinc	Roasting	x	x	x	x				x		
Aluminum	Ore Treatment	x	x	x	x				x		Halogens
Non-ferrous Foundries		x	x	x	x			x	x	x	
Inorganic Chemical Industry											
Hydraulic end production	Furnace exhaust gases	x			x				x		x**
Hydraulic acid	Kiln exhaust gases	x		H_2S	x				x		x**
Phosphoric acid	Absorber tower discharge	x		H_2S					x		x**
Nitric acid	Absorber tower discharge	x			x				x		x**
Sulfuric acid	Absorber tower discharge	x			x				x		x**
Lime	Kiln gases	x			x				x		
Soda Ash	Vent gas from brine purification				x						

Table A-III (Cont'd)

Category	Process	Sulfur			Nitrogen			Hydrocarbons			Others
		SO_2	R-SH	H_2S	NH_3	Amines	Others	Hydro-carbons	R-COH	R-COOH	
Inorganic Chemical Industry (cont'd)											
Sodium hydroxide	Fusion pot, ammonia scrubber				x						x***
Phosphate Fertilizers	Phosphate Rocks preparation	x			x				x		
	n-Super phosphate production	x			x				x		
	Triple-superphosphate production	x			x				x		
	Diammonia phosphate production	x			x				x		
	Ammonia Nitrate	x			x			x	x		
	Chlorine										Cl
Petroleum Refineries	Storage Tanks							x			
	Boilers & process heaters	x		x	x			x	x		
	Fluid catalytic units	x			x			x	x		
	Moving bed catalytic cracking units	x			x			x	x		
	Compressor internal combustion engine	x			x			x	x		
	Blowdown systems	x	x	x	x			x	x	x	x
Organic Chemical Industry											
Plastic Materials		x			x			x	x	x	x
Synthetic Fibers		x			x			x	x	x	x
Organic Chemicals		x	x		x			x	x	x	x
Alcohols								x			x
Drugs and Medicines		x			x			x	x	x	x
Soap and Related Products		x			x			x	x	x	x
Paints and allied products		x			x			x	x	x	x
Solvents		x			x			x	x	x	x
Rubber products		x			x			x	x	x	
Leather products		x			x			x	x	x	

Table A-III (Cont'd)

Category	Process	Sulfur			Nitrogen			Hydrocarbons			Others
		SO_2	R-SH	Sulfide	NH_3	Amines	Others	Hydro-carbons	R-COH	R-COOH	
Food and Feed Industries											
Crop Production	Application of odorous fertilizers				x						
	Insecticide spraying							x			Esters
	Weed burning	x			x				x		
	Crop wastes allowed to remain on the ground		x	x	x	x				x	
Animal production	Cattle feed yards			x	x	x				x	
	Hog and sheep pens			x	x	x				x	
	Poultry production			x	x	x				x	
Food Processing	Meat packing: holding yards		x	x	x	x				x	
	Casing room		x	x	x	x				x	
	By-product processing		x	x	x	x				x	
	Storage of raw material and by-products		x	x	x	x				x	
	Fish processing		x	x	x	x			x	x	
	Fruit & Vegetable: Storage		x	x	x	x				x	
	Processing		x	x	x	x				x	
	Wastewater lagoons		x	x	x	x				x	
	Coffee roasting	x				x		x	x	x	x
	Spices and condiment	x				x		x	x	x	x
	Breweries					x			x	x	x
Feed Manufacture	Storage and processing of by-products from grain processing, corn milling, fermentation processes, beet pulp, by-products from milk and meat packing industries, molasses, tankage, bone meal, fish meal		x	x	x	x		x	x	x	x

APPENDIX B

COMBINATIONS OF THREE-DIGIT ZIP CODES INCLUDED IN METROPOLITAN AREAS

APPENDIX B

COMBINATIONS OF THREE-DIGIT ZIP CODES INCLUDED IN METROPOLITAN AREAS

This appendix contains the combinations of three-digit zip codes included in each of the metropolitan areas listed in this study. For purposes of this study, a "metropolitan area" is defined as a city (or contiguous cities) to which the Post Office Department has assigned a unique Sectional Center zip code number(s) plus the surrounding Sectional Area(s). "Three-digit zip code area" is used synonymously with "Sectional Area."

Metropolitan Area by State	Three-Digit Zip Code Combination
Alabama	
Birmingham	350-352
Alaska	
Anchorage	995-996
Arizona	
Phoenix	850-853
California	
Los Angeles	900-918
Sacramento	956-958
San Diego	920-921
San Francisco-Oakland	940-944, 945-948
San Jose	950-951
Santa Ana	926-928
Colorado	
Denver	800-803

Metropolitan Area by State	Three-Digit Zip Code Combination
Connecticut	
Hartford	060-061
New Haven	064-066
Delaware	
Wilmington	197-198, 219
Florida	
Jacksonville	320-322
Miami	330-333
Tampa	335-337
Georgia	
Atlanta	300-303
Illinois	
Chicago	600-606
Indiana	
Gary	463-464
Indianapolis	460-462
Kentucky	
Louisville	400-402, 471
Louisiana	
New Orleans	700-701
Maryland	
Baltimore	210-214
Prince Georges	207-209

Metropolitan Area by State	Three-Digit Zip Code Combination
Massachusetts	
Boston	017-022
Springfield	010-011
Michigan	
Detroit	480-482
Grand Rapids	493-495
Kalamazoo	490-491
Saginaw	486-487
Minnesota	
Minneapolis-St. Paul	550-554
Rochester	559
Missouri	
Kansas City (KS and MO)	640-641, 660-662
St. Louis-East St. Louis (IL)	620-622, 630-631
Nebraska	
Omaha	680-681
New Jersey	
Newark	070-076, 079
New Brunswick	088-089
New York	
Albany	120-123
Buffalo	140-143
Hicksville	117-118
New York (New York City and Long Island Terminal)	100-104, 110-116
Rochester	144-146
Syracuse	130-132
White Plains	105-108

Metropolitan Area by State	Three-Digit Zip Code Combination
North Carolina	
Charlotte	280-282
Greensboro	270-274
Ohio	
Canton	446-447
Cincinnati	450-452, 470
Cleveland	440-441
Columbus	430-432
Dayton	453-455
Toledo	434-436
Oregon	
Portland	970-972
Pennsylvania	
Harrisburg	170-171
Philadelphia-Camden (NJ)	189-194, 080-084
Pittsburgh	150-152
Rhode Island	
Providence	027-029
South Dakota	
Sioux Falls	570-571
Tennessee	
Chattanooga	373-374
Johnson City	376
Memphis	380-381
Nashville	370-372

Metropolitan Area by State	Three-Digit Zip Code Combination
Texas	
Dallas	750-752
Fort Worth	760-761
Houston	770-775
San Antonio	780-782
Virginia	
Norfolk	233-237
Richmond	230-232
Washington	
Seattle	980-981
Wisconsin	
Green Bay	541-543
Madison	535-537
Milwaukee	530-534
Oshkosh	549
District of Columbia	
Washington-Arlington (VA)	200-205, 220-223

Source: "Zip Code Sectional Areas: Population and Sales Data," Commercial Atlas & Marketing Guide (100th ed.; Chicago: Rand McNally & Company, 1969), pp. 53 and 56.

APPENDIX C

THREE-DIGIT ZIP CODE AREAS OF THE UNITED STATES

APPENDIX C

THREE-DIGIT ZIP CODE AREAS OF THE UNITED STATES

Zip Code	Zip Sectional Center
010-011	Springfield, MA
012	Pittsfield, MA
013	Greenfield, MA
014	Fitchburg, MA
015-016	Worcester, MA
017-022	Boston, MA
023-024	Brockton, MA
025	Buzzards Bay, MA
026	Hyannis, MA
027	Providence, RI (MA part)
028-029	Providence, RI
030-031	Manchester, NH
032-033	Concord, NH
034	Keene, NH
035	Littleton, NH
036	Bellows Falls, VT (NH part)
037	White River Jct., VT (NH part)
038	Portsmouth, NH
039	Portsmouth, NH (ME part)
040-041	Portland, ME
042	Auburn, ME
043	Augusta, ME
044	Bangor, ME
045	Bath, ME
046	Ellsworth, ME
047	Houlton, ME
048	Rockland, ME
049	Waterville, ME
050	White River Jct., VT
051	Bellows Falls, VT
052	Bennington, VT
053	Brattleboro, VT
054	Burlington, VT
056	Montpelier, VT
057	Rutland, VT
058	St. Johnsbury, VT
059	Littleton, NH (VT part)
060-061	Hartford, CT
062	Willimantic, CT
063	New London, CT
064-066	New Haven, CT
067	Waterbury, CT
068-069	Stamford, CT
070-076, 079	Newark, NJ
077	Red Bank, NJ
078	Dover, NJ
080-084	Camden, NJ
085-086	Trenton, NJ
087	Lakewood, NJ
088-089	New Brunswick, NJ
100-104	New York, NY
105-108	White Plains, NY
109	Suffern, NY
110-116	Long Island Terminal, NY
117-118	Hicksville, NY
119	Riverhead, NY
120-123	Albany, NY
124	Kingston, NY
125-126	Poughkeepsie, NY
127	Monticello, NY
128	Glens Falls, NY
129	Plattsburgh, NY
130-132	Syracuse, NY
133-135	Utica, NY

THREE-DIGIT ZIP CODE AREAS OF THE UNITED STATES (Cont'd)

Zip Code	Zip Sectional Center
136	Watertown, NY
137-139	Binghamton, NY
140-143	Buffalo, NY
144-146	Rochester, NY
147	Jamestown, NY
148-149	Elmira, NY
150-152	Pittsburgh, PA
153	Washington, PA
154	Uniontown, PA
155	Somerset, PA
156	Greensburgh, PA
157	Indiana, PA
158	Du Bois, PA
159	Johnstown, PA
160	Butler, PA
161	New Castle, PA
162	Kittanning, PA
163	Oil City, PA
164-165	Erie, PA
166	Altoona, PA
167	Bradford, PA
168	State College, PA
196	Wellsboro, PA
170-171	Harrisburg, PA
172	Chambersburgh, PA
173-174	York, PA
175-176	Lancaster, PA
177	Williamsport, PA
178	Sunbury, PA
179	Pottsville, PA
180-181	Lehigh Valley (Bethlehem), PA
182	Hazleton, PA
183	East Stroudsburg, PA
184-185	Scranton, PA
186-187	Wilkes-Barre, PA
188	Montrose, PA
189-194	Philadelphia, PA
195-196	Reading, PA
197-198	Wilmington, DE
199	Dover, DE
200-205	Washington, DC
206	Waldorf, MD
207-209	Prince Georges, MD
210-214	Baltimore, MD
215	Cumberland, MD
216	Easton, MD
217	Frederick, MD
218	Salisbury, MD
219	Wilmington, DE (MD part)
220-223	Northern Virginia, VA
224-225	Fredericksburg, VA
226	Winchester, VA
227	Culpeper, VA
228	Harrisonburg, VA
229	Charlottesville, VA
230-232	Richmond, VA
233-237	Norfolk, VA
238	Petersburg, VA
239	Farmville, VA
240-241	Roanoke, VA
242	Bristol, VA
243	Pulaski, VA
244	Staunton, VA
245	Lunchburg, VA
246	Bluefield, WV (VA part)
247-248	Bluefield, WV
249	Lewisburg, WV
250-253	Charleston, WV
254	Martinsburg, WV
255-257	Huntington, WV
258-259	Beckley, WV
260	Wheeling, WV
261	Parkersburg, WV
262	Buckhannon, WV

THREE-DIGIT ZIP CODE AREAS OF THE UNITED STATES (Cont'd)

Zip Code	Zip Sectional Center
263-264	Clarksburg, WV
265	Morgantown, WV
266	Sutton, WV
267	Cumberland, MD (WV part)
268	Petersburg, WV
270-274	Greensboro, NC
275-277	Raleigh, NC
278	Rocky Mount, NC
279	Elizabeth City, NC
280-282	Charlotte, NC
283	Fayetteville, NC
284	Wilmington, NC
285	Kinston, NC
286	Hickory, NC
287-288	Asheville, NC
289	Gainesville, GA (NC part)
290-292	Columbia, SC
293	Spartanburg, SC
294	Charleston, SC
295	Florence, SC
296	Greenville, SC
297	Charlotte, NC (SC part)
298	Augusta, GA (SC part)
299	Savannah, GA (SC part)
300-303	Atlanta, GA
304	Swainsboro, GA
305	Gainesville, GA
306	Athens, GA
307	Chattanooga, TN (GA part)
308-309	Augusta, GA
310-312	Macon, GA
313-314	Savannah, GA
315	Waycross, GA
316	Valdosta, GA
317	Albany, GA
318-319	Columbus, GA
320-322	Jacksonville, FL
323	Tallahassee, FL
324	Panama City, FL
325	Pensacola, FL
326	Gainesville, FL
327-328	Orlando, FL
329	Melbourne, FL
330-333	Miami, FL
334	West Palm Beach, FL
335-337	Tampa, FL
338	Lakeland, FL
339	Fort Myers, FL
350-352	Birmingham, AL
354	Tuscaloosa, AL
355	Jasper, AL
356	Decatur, AL
357-358	Huntsville, AL
359	Gadsden, AL
360-361	Montgomery, AL
362	Anniston, AL
363	Dothan, AL
364	Evergreen, AL
365-366	Mobile, AL
367	Selma, AL
368	Opelika, AL
369	Meridian, MS (AL part)
370-372	Nashville, TN
373-374	Chattanooga, TN
376	Johnson City, TN
377-379	Knoxville, TN
380-381	Memphis, TN
382	McKenzie, TN
383	Jackson, TN
384	Columbia, TN
385	Cookeville, TN
386	Memphis, TN (MS part)

THREE-DIGIT ZIP CODE AREAS OF THE UNITED STATES (Cont'd)

Zip Code	Zip Sectional Center
387	Greenville, MS
388	Tupelo, MS
389	Grenada, MS
390-392	Jackson, MS
393	Meridian, MS
394	Laurel, MS
395	Gulfport, MS
396	McComb, MS
397	Columbus, MS
400-402	Louisville, KY
403-406	Lexington, KY
407-409	Corbin, KY
410	Cincinnati, OH (KY part)
411-412	Ashland, KY
413-414	Campton, KY
415-416	Pikeville, KY
417-418	Hazard, KY
420	Paducah, KY
421-422	Bowling Green, KY
423	Owensboro, KY
424	Evansville, IN (KY part)
425-426	Somerset, KY
427	Elizabethtown, KY
430-432	Columbus, OH
433	Marion, OH
434-436	Toledo, OH
437-438	Zanesville, OH
439	Steubenville, OH
440-441	Cleveland, OH
442-443	Akron, OH
444-445	Youngstown, OH
446-447	Canton, OH
448-449	Mansfield, OH
450-452	Cincinnati, OH
453-455	Dayton, OH
456	Chillicothe, OH
457	Athens, OH
458	Lima, OH
460-462	Indianapolis, IN
463-464	Gary, IN
465-466	South Bend, IN
467-468	Fort Wayne, IN
469	Kokomo, IN
470	Cincinnati, OH (IN part)
471	Louisville, KY (IN part)
472	Columbus, IN
473	Muncie, IN
474	Bloomington, IN
475	Washington, IN
476-477	Evansville, IN
478	Terre Haute, IN
479	Lafayette, IN
480-482	Detroit, MI
484-485	Flint, MI
486-487	Saginaw, MI
488-489	Lansing, MI
490-491	Kalamazoo, MI
492	Jackson, MI
493-495	Grand Rapids, MI
496	Traverse City, MI
497	Mackinaw City, MI
498-499	Iron Mountain, MI
500-503	Des Moines, IA
504	Mason City, IA
505	Fort Dodge, IA
506-507	Waterloo, IA
508	Creston, IA
510-511	Sioux City, IA
512	Sheldon, IA
513	Spencer, IA
514	Carroll, IA
515	Council Bluffs, IA
516	Shenandoah, IA
520	Dubuque, IA
521	Decorah, IA
522-524	Cedar Rapids, IA

THREE-DIGIT ZIP CODE AREAS OF THE UNITED STATES (Cont'd)

Zip Code	Zip Sectional Center
525	Ottumwa, IA
526	Burlington, IA
527-528	Rock Island, IL (IA part)
530-534	Milwaukee, WI
535-537	Madison, WI
538	Dubuque, IA (WI part)
539	Portage, WI
540	St. Paul, MN (WI part)
541-543	Green Bay, WI
544	Wausau, WI
545	Rhinelander, WI
546	La Crosse, WI
547	Eau Claire, WI
548	Spooner, WI
549	Oshkosh, WI
550-551	St. Paul, MN
553-554	Minneapolis, MN
556-558	Duluth, MN
559	Rochester, MN
560	Mankato, MN
561	Windom, MN
562	Willmar, MN
563	St. Cloud, MN
564	Brainerd, MN
565	Detroit Lakes, MN
566	Bemidji, MN
567	Thief River Falls, MN
570-571	Sioux Falls, SD
572	Watertown, SD
573	Mitchell, SD
574	Aberdeen, SD
575	Pierre, SD
576	Mobridge, SD
577	Rapid City, SD
580-581	Fargo, ND
582	Grand Forks, ND
583	Devil's Lake, ND
584	Jamestown, ND
585	Bismarck, ND
586	Dickinson, ND
587	Minot, ND
588	Williston, ND
590-591	Billings, MT
592	Wolf Point, MT
593	Miles City, MT
594	Great Falls, MT
595	Havre, MT
596	Helena, MT
597	Butte, MT
598	Missoula, MT
599	Kalispell, MT
600-606	Chicago, IL
609	Kankakee, IL
610-611	Rockford, IL
612	Rock Island, IL
613	La Salle, IL
614	Galesburg, IL
615-616	Peoria, IL
617	Bloomington, IL
618-619	Champaign, IL
620-622	East St. Louis, IL
623	Quincy, IL
624	Effingham, IL
625-627	Springfield, IL
628	Centralia, IL
629	Carbondale, IL
630-631	St. Louis, MO
633	St. Charles, MO
634	Hannibal, MO
635	Kirksville, MO
636	Flat River, MO
637	Cape Girardeau, MO
638	Sikeston, MO

THREE-DIGIT ZIP CODE AREAS OF THE UNITED STATES (Cont'd)

Zip Code	Zip Sectional Center
639	Poplar Bluff, MO
640-641	Kansas City, MO
644-645	St. Joseph, MO
646	Chillicothe, MO
647	Harrisonville, MO
648	Joplin, MO
650-651	Jefferson City, MO
652	Columbia, MO
653	Sedalia, MO
654-655	Rolla, MO
656-658	Springfield, MO
660-662	Kansas City, KS
664-666	Topeka, KS
667	Fort Scott, KS
668	Emporia, KS
669	Concordia, KS
670-672	Wichita, KS
673	Independence, KS
674	Salina, KS
675	Hutchinson, KS
676	Hays, KS
677	Colby, KS
678	Dodge City, KS
679	Liberal, KS
680-681	Omaha, NB
683-685	Lincoln, NB
686	Columbis, NB
687	Norfolk, NB
688	Grand Island, NB
689	Hastings, NB
690	McCook, NB
691	North Platte, NB
692	Valentine, NB
693	Alliance, NB
700-701	New Orleans, LA
703	Thibodaux, LA
704	Hammond, LA
705	Lafayette, LA
706	Lake Charles, LA
707-708	Baton Rouge, LA
710-711	Shreveport, LA
712	Monroe, LA
713-714	Alexandria, LA
716	Pine Bluff, AR
717	Camden, AR
718	Hope, AR
719	Hot Springs National Park, AR
720-722	Little Rock, AR
723	West Memphis, AR
724	Jonesboro, AR
725	Batesville, AR
726	Harrison, AR
727	Fayetteville, AR
728	Russellville, AR
729	Fort Smith, AR
730-731	Oklahoma City, OK
734	Ardmore, OK
735	Lawton, OK
736	Clinton, OK
737	Enid, OK
738	Woodward, OK
739	Liberal, KS (OK part)
740-741	Tulsa, OK
743	Vinita, OK
744	Muskogee, OK
745	McAlester, OK
746	Ponca City, OK
747	Durant, OK
748	Shawnee, OK
749	Fort Smith, AR (OK part)
750-752	Dallas, TX
754	Greenville, TX
755	Texarkana, TX
756	Longview, TX

THREE-DIGIT ZIP CODE AREAS OF THE UNITED STATES (Cont'd)

Zip Code	Zip Sectional Center
757	Tyler, TX
758	Palestine, TX
759	Lufkin, TX
760-761	Fort Worth, TX
762	Denton, TX
763	Wichita Falls, TX
764	Stephenville, TX
765	Temple, TX
766-767	Waco, TX
768	Brownwood, TX
769	San Angelo, TX
770-775	Houston, TX
776-777	Beaumont, TX
778	Bryan, TX
779	Victoria, TX
780-782	San Antonio, TX
783-784	Corpus Christi, TX
785	McAllen, TX
786-787	Austin, TX
788	Uvalde, TX
789	La Grange, TX
790-791	Amarillo, TX
792	Childress, TX
793-794	Lubbock, TX
795-796	Abilene, TX
797	Midland, TX
798-799	El Paso, TX
800-803	Denver, CO
805	Longmont, CO
806	Brighton, CO
807	Fort Morgan, CO
808-809	Colorado Springs, CO
810	Pueblo, CO
811	Alamosa, CO
812	Salida, CO
813	Durango, CO
814	Montrose, CO
815	Grand Junction, CO
816	Glenwood Springs, CO
820	Cheyenne, WY
822	Wheatland, WY
823	Rawlins, WY
824	Worland, WY
825	Riverton, WY
826	Casper, WY
827	New Castle, WY
828	Sheridan, WY
829-931	Rock Springs, WY
832	Pocatello, ID
833	Twin Falls, ID
834	Idaho Falls, ID
835	Lewiston, ID
836-837	Boise, ID
838	Spokane, WA (ID part)
840-841	Salt Lake City, UT
843-844	Ogden, UT
845	Price, UT
846-847	Provo, UT
850-853	Phoenix, AZ
855	Globe, AZ
856-857	Tucson, AZ
859	Show Low, AZ
860	Flagstaff, AZ
863	Prescott, AZ
864	Kingman, AZ
865	Gallup, NM (AZ part)
870-871	Albuquerque, NM
873	Gallup, NM
874	Farmington, NM
875	Santa Fe, NM
877	Las Vegas, NM
878	Socorro, NM
879	Truth or Consequences, NM
880	Las Cruces, NM
881	Clovis, NM

THREE-DIGIT ZIP CODE AREAS OF THE UNITED STATES (Cont'd)

Zip Code	Zip Sectional Center
882	Roswell, NM
883	Carrizozo, NM
884	Tucumcari, NM
890-891	Las Vegas, NV
893	Ely, NV
894-897	Reno, NV
898	Elko, NV
900-918	Los Angeles, CA
920-921	San Diego, CA
922	Indio, CA
923-925	San Bernardino, CA
926-928	Santa Ana, CA
930-931	Ventura, CA
932-933	Bakersfield, CA
934	San Luis Obispo, CA
935	Mojave, CA
936-937	Fresno, CA
939	Salinas, CA
940-944	San Francisco, CA
945-948	Oakland, CA
949	San Rafael, CA
950-951	San Jose, CA
952-953	Stockton, CA
954	Santa Rosa, CA
955	Eureka, CA
956-958	Sacramento, CA
959	Marysville, CA
960	Redding, CA
961	Reno, NV (CA part)
967-968	Honolulu, HI
970-972	Portland, OR
973	Salem, OR
974	Eugene, OR
975	Medford, OR
976	Klamath Falls, OR
977	Bend, OR
978	Pendleton, OR
979	Boise, ID (OR part)
980-981	Seattle, WA
982	Everett, WA
983-984	Tacoma, WA
985	Olympia, WA
986	Portland, OR (WA part)
988	Wenatchee, WA
989	Yakima, WA
990-992	Spokane, WA
993	Pasco, WA
994	Lewiston, ID (WA part)
995-996	Anchorage, AK
997	Fairbanks, AK
998	Juneau, AK
999	Ketchikan, AK

Source: "Zip Code Sectional Areas: Population and Sales Data," Commercial Atlas & Marketing Guide (100th ed.; Chicago: Rand McNally & Company, 1969), pp. 53 and 56.

APPENDIX D

SUMMARY OF SURVEY RESULTS FROM QUESTIONNAIRES RECEIVED FROM 100 LOCAL AIR POLLUTION CONTROL AGENCIES

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APPENDIX D*

SUMMARY OF SURVEY RESULTS FROM QUESTIONNAIRES RECEIVED FROM 100 LOCAL AIR POLLUTION CONTROL AGENCIES

Table (1) Geographic boundary within which agency has operational responsibility:

Number of Agencies	Type of Geographic Boundary
16	City
59	County
15	Counties
10	No Answer
100	

Note: (1) A "county" or "counties" may or may not include cities.
(2) Washington, D.C., Puerto Rico, The Virgin Islands, and the Alaskan boroughs are considered to be a county or cluster of counties.

Table (2) Approximate number of square miles encompassed by district:

Number of Districts	Square Miles in District
25	0 - 99
22	100 - 499
20	500 - 999
21	1,000 - 4,999
7	5,000 - 9,999
2	10,000 and up
3	No Answer
100	

Note: Table numbers in this section of Appendix D are comparable to the question numbers on the local air pollution control agency questionnaire.

Table (3) Current population within district:

Number of Districts	Population
6	0 - 49,000
16	50,000 - 99,999
44	100,000 - 499,999
19	500,000 - 999,999
10	1,000,000 - 1,999,999
4	2,000,000 and up
1	No Answer
100	

Table (4A) Total annual budget for agency:

Number of Agencies	Total Annual Budget
12	$0 - 24,999
17	25,000 - 49,999
21	50,000 - 99,999
36	100,000 - 499,999
5	500,000 - 999,999
4	1,000,000 and up
5	No Answer
100	

Table (4B) Estimate of proportion of total annual agency budget applied to odor pollution problems in last fiscal year:

Number of Agencies	Proportion of Total Budget
46	0 - 1 %
24	2 - 5
12	6 - 10
9	11 - 25
4	26 and up
5	No Answer
100	

Note: The average proportion of total agency budget applied to odor pollution problems in the last fiscal year for all agencies responding is about 6.3%.

Table (4C) Utilizing the data obtained in Questions 2 through 4, it was possible to develop several additional tables:

Population Density of Air Pollution Control Districts

Number of Agencies	Range Persons/Sq. Mile
15	1 - 100
26	101 - 500
11	501 - 1,000
31	1,001 - 5,000
13	5,001 and over
4	No Answer
100	

Per Capita Annual Budget of Air Pollution Control Districts

Number of Agencies	Range Dollars/Person
39	0 - 0.25
33	0.26 - 0.50
13	0.51 - 0.75
2	0.76 - 1.00
7	1.01 and over
6	No Answer
100	

Table (5A) Number of districts having one or more odor pollution problems:

Number of Districts	
85	Have one or more odor pollution problems
11	Have no odor pollution problems
4	No Answer
100	

Table (5B) Number of complaints about odors received by agency in past 12 months:

Number of Agencies	Number of Complaints
28	1 - 25
23	26 - 75
14	76 - 150
15	150 and over
5	No Answer
85	

Table (5C) Complaints about odors as proportion of all air pollution complaints received by agency in past 12 months:

Number of Agencies	Proportion of Odor Complaint
37	1% - 10%
16	11 - 25
22	26 - 50
5	51 - 75
2	76 - 100
3	No Answer
85	

Table (5D) Criteria used by agencies for defining odor pollution problems:

Number of Agencies	Major Criteria
16	Nuisance complaints received/Number of people affected
10	Determine if detrimental to health and welfare of people affected
6	Definition of malodor/definition of source
5	Subjective judgement of agency personnel
4	Scentometer
2	Defined in local air pollution codes and regulations
2	Other scientific instrumentation
40	No Answer (no criteria)
85	

Table (5E) Tables on pages D-5 through D-7 are summaries of the various types of information gathered under question 5E. These tables summarize the various odor pollution problems recognized by the local air pollution control agencies.

Table (5E-1)

Source Code	Number of Sources	Per Cent of Total	
1	21	4.6%	Steel mill/foundry/metal works
2	24	5.3	Pulp mill/kraft mill/wood
3	45	10.0	Land fill/dump/open burning/ incinerators
4	4	0.9	Grain processing and vegetable storage
5	11	2.4	Fruit and vegetable processing
6	6	1.3	Fishery and fish processing
7	3	0.7	Cement plant
8	43	9.5	Petroleum and natural gas refining/ asphalt production
9	67	14.8	Rendering/meat packing/slaughter house
10	4	0.9	Rubber/tires
11	7	1.5	Fertilizer
12	65	14.0	Chemical/plastic
13	31	6.8	Sewage/human waste
14	32	7.0	Animal farms/feed lots/stockyards
15	10	2.2	Coffee roasting/spices
16	1	0.2	Distillery
17	1	0.2	Soap/detergent
18	25	5.5	Commercial-restaurants/dry cleaning
19	1	0.2	Swamps/creeks/stagnant water
20	16	3.5	Paint/varnish/lacquer
21	7	1.5	Traffic/motor vehicles
22	2	0.4	Printing
23	26	5.7	Miscellaneous and other
	452	100.0%	

Table (5E-2)

Source Code	No. of Sources	% of Total	Total No. of Sq. Miles	Aver. No. Sq. Miles Per Odor Source Affected	Total Population Affected	Average Population Per Odor Source in Affected Area
1	21	4.6	143	6.8	581,564	27,694
2	24	5.3	2,424	101.0	1,052,800	43,867
3	45	10.0	1,939	43.1	2,359,870	52,439
4	4	0.9	15	3.8	42,500	10,625
5	11	2.4	320	29.1	18,180	1,653
6	6	1.3	34	5.7	135,225	22,537
7	3	0.7	31	10.3	6,100	2,033
8	43	9.5	1,038	24.1	472,980	10,999
9	67	14.8	331	4.9	221,224	3,301
10	4	0.9	14	3.5	5,900	1,475
11	7	1.5	47	6.7	11,525	1,646
12	65	14.4	850	13.1	782,856	12,044
13	31	6.9	388	12.5	345,660	11,150
14	32	7.0	686	21.4	305,255	9,539
15	10	2.2	20	2.0	52,900	5,290
16	1	0.2	*	*	*	*
17	1	0.2	*	*	*	*
18	25	5.5	141	5.6	43,793	1,751
19	1	0.2	*	*	*	*
20	16	3.5	21	1.2	9,932	620
21	7	1.5	4,359	622.7	2,886,400	412,340
22	2	0.4	*	*	*	*
23	26	5.8	975	37.5	1,682,012	646,927
	452	100.0%	13,776	30.5	11,016,676	2,827

* Data too scarce to report

Table (5E-3)

Source Code	Total No. of Complaints	Aver. No. of Complaints Per Odor Source	# Degree Seriousness (%) 5	4	3	2	1	## Situation Over Time (%) 5	4	3	2	1
1	91	4.3	4.8	4.8	28.6	47.6	14.3	14.3	4.8	23.8	33.3	23.8
2	126	52.5	4.3	8.7	26.1	43.5	17.4	8.7	47.8	13.0	8.7	21.7
3	692	15.4	0	6.7	17.8	51.1	22.2	4.4	15.4	33.3	26.7	17.8
4	16	4.0	25.0	0	50.0	25.0	0	0	75.0	0	0	25.0
5	14	1.3	0	0	27.3	36.4	36.4	0	0	45.5	9.1	45.5
6	54	9.0	0	0	16.7	16.7	66.7	0	33.3	16.7	0	50.0
7	9	3.0	0	33.3	33.3	0	33.3	0	33.3	0	0	66.7
8	128	3.0	4.7	0	20.9	25.6	48.8	2.3	11.6	34.9	14.0	37.2
9	180	2.7	6.1	15.2	19.7	31.8	27.2	7.5	7.5	39.4	29.9	15.7
10	33	8.3	0	25.0	25.0	25.0	25.0	0	25.0	25.0	25.0	25.0
11	12	1.7	0	0	14.3	71.4	14.3	0	0	42.9	57.1	0
12	343	5.3	0	24.6	21.5	32.3	21.5	7.7	10.8	35.4	18.5	27.6
13	103	3.3	0	6.5	25.8	32.3	35.4	0	10.0	51.7	10.0	28.3
14	97	3.0	0	0	32.3	32.3	35.4	6.5	9.8	38.7	12.9	32.1
15	56	5.6	0	10.0	20.0	40.0	30.0	0	0	60.0	20.0	20.0
16	*	*	*	*	*	*	*	*	*	*	*	*
17	*	*	*	*	*	*	*	*	*	*	*	*
18	92	3.7	0	4.0	8.0	20.0	68.0	0	0	28.0	16.0	56.0
19	*	*	*	*	*	*	*	*	*	*	*	*
20	31	1.9	0	6.3	37.5	25.0	31.3	0	12.5	18.8	25.0	43.8
21	7	1.0	0	0	14.3	57.1	28.6	14.3	28.6	28.6	0	28.6
22	*	*	*	*	*	*	*	*	*	*	*	*
23	126	4.8	0	7.7	23.1	42.3	26.9	7.7	11.5	15.4	34.6	30.8
	2,210	4.9										

* Data too scarce to report

\# 5 - Critical, 4 - very serious, 3 - serious, 2- moderately serious, 1 - not serious

5 - More serious each year, 4 - continuously serious, 3 - occasionally serious, 2 - less serious each year, 1 - not serious

Table (6A) **Agencies having odor pollution problems provided the following data about the types of people contacted, the number of people contacted, how the contacts were initiated, and whether the data collected were formal or informal in nature.**

Table (6A-1)

Number of Agencies	Types of People Contacted
36	Residents/home owners/ general public
26	Offenders/business and industrial management
17	Complainants
7	Elected public officials
6	Air pollution control agency personnel
4	Citizen groups
3	Random samplings of public
14	No Answer
113	

Note: A number of agencies gave multiple responses to this question.

Table (6A-2)

Number of Agencies	Number of People Generally Contacted
35	1 to 25
10	26 to 50
6	51 to 100
3	101 to 250
3	250 and over
14	Varies
14	No Answer
85	

Table (6A-3)

Number of Agencies	Who Initiated Contact
42	Air Pollution Control Agency personnel
33	Complainants and general public
10	No Answer
85	

Table (6A-4)

Number of Agencies	Formal or Informal Data Collected
28	Informal
24	Formal
18	Both
15	No Answer
85	

Table (6B) Use of technical staff in assessing odor pollution problems:

Number of Agencies	Type of Work Performed
25	Routine surveillance and complaint investigation
17	Conferences/meetings/interviews
16	Field investigations with instruments
14	Recommendations for corrective measures
13	Field investigations / organoleptic (nose)
10	Field collection/laboratory analysis/engineering surveys
12	No technical staff
107	

Note: A number of agencies gave multiple responses to this question.

Table (6C) Equipment used in assessing odor pollution problems:

Number of Agencies	Type of Equipment
12	Scentometer
8	West-Gaeke method for SO_2/SO_2 "tests"
6	H_2S tape samples/Cadmium Iodide Test/H_2S "tests"
6	Gas chromatograph/gas meters
4	Wet chemical analysis/water tests
3	Impingers (Cds, NaOH, etc.)
3	Nessler analysis for ammonia/ammonia "tests"
2	Meteorological equipment/balloons
1	Bubbling collectors
1	Mine safety appliances
1	Graf samples
1	Flame ionization analysis
1	Phenol test
1	Carbon monoxide meters
1	Drager test equipment
3	Other "tests"/"sampling"
45	None
99	

Note: A number of agencies gave multiple responses to this question.

Table (6D) This question asked for additional comments on the agency's methodology in identifying and assessing odor pollution problems. The best way to present this information is to reprint the verbatim comments from the thirty-three agencies responding:

- Our assessments are limited to a few sources and constitute a relatively small percent of our total program.

- Most odor problems (open burning-industrial) are determined with great facility. We have also worked with the Labor Department and the county health department on odor problems concerning these organizations.

- Adhere to Field Operations Manual: tracking; upwind; downwind; duration time; etc.

- Unpleasant odors may not be a bodily health hazard, but may be a mental strain. The Bureau considers this point in its approach to air pollution control.

Table (6D) (Cont'd)

- Liberal use of nose and common sense.
- Problems are assessed by Inspector's olfactory senses and volume of citizen complaints.
- We have access to a gas chromatograph, but as yet no one available and qualified to operate it.
- An odor panel is a working impossibility. Investigations must be made immediately and the mechanics of gathering a panel and samples is virtually impossible. Samples for later evaluation by a panel may also be taken to reinforce findings.
- Identifying odor sources is seldom any problem. Affecting controls is another story.
- All of our staff is familiar with each odor source in the area, and each is very distinctive.
- We probably need some relatively respectable tools in this field.
- Our odor problems are strictly intermittant propositions. The Kraft Paper Mill is located 45 miles south of Columbus. With suitable meteorological conditions, this odor is prevalent in approximately one-half of the total city area. The other sources listed are usually due to plant malfunctions and are not continuous.
- Odor problems are assessed by the number of persons affected, duration of the effect, and relation of effect to weather conditions.
- We know of no acceptable instrumentation or method of standardization which could serve to measure or be used as a basis of control for the entire gamut of odor problems.
- We could use some help in identifying the components causing the problems.
- If the odor falls in the category of a nuisance further investigation and contact with source is initiated.
- No corrective measures taken.

Table (6D) (Cont'd)

- Extensive studies of odor emissions, complaint level and meteorology are constantly being reviewed.
- Abatement generally is brought about through cooperative means.
- Use nose of investigators and sample of odors to confirm field odors by nose. Use public description (sewer odor, chemical type, burned type, etc.).
- We feel there could be some objective method and, we are open to suggestions.
- Present methods are inadequate.
- Even with the use of a scentometer it becomes a difficult task to measure concentration of odorous gases.
- Source investigation - identification of odorant by process inspection. Relation of degree of neighborhood complaint to intensity of enforcement.
- Presently a new system of analysis is being developed and established to allow technical data to be collected to aid in the determination of the type of odor present and the amount of concentration.
- No satisfactory method.
- No problems in identifying odor or source.
- No equipment available for this.
- It is all subjective response.
- From environmental analysis reports we can ascertain emissions in local area for problem sources determination.
- The methodology employed by this agency is appropriate and adequate for identifying and assessing odor-irritant problems in this area.
- Personal observation - no effective method.
- As well as we can determine, the human nose is the best judge of how serious an odor problem is.

Table (7A) Action taken by agencies to abate listed odor problems:

Number of Agencies	Type of Abatement Activity
22	Request cooperation/conferences/recommendations/ persuasion
18	Require abatement equipment: afterburners, filters, scrubbers, incinerators, aerators, condensors
13	Require improved process/change process/ change operation time/ discontinue operation
8	Resort to regulations and ordinances
7	Take legal action/prosecute
5	Investigate and evaluate (no follow up on outcome)
4	Abate odor by one or more means (non-specific)
3	No corrective action or control
5	No answer
85	

Table (7B) Means for odor abatement currently available to agency:

Number of Agencies	Means for Odor Abatement
30	Air pollution regulations, ordinances, etc.
18	"Nuisance" regulations and laws
5	Health and sanitation regulations, ordinances, etc.
7	Other miscellaneous means
11	No means available
14	No answer
85	

Table (8A) Number of stories on local air pollution estimated printed each month by major newspapers in district:

Number of Agencies	Number of Stories
3	None
61	1 - 5
14	6 - 10
10	11 - 20
8	21 or more
4	No answer
100	

Table (8B) Proportion of local air pollution stories in newspapers dealing, in whole or in part, with odor problems:

Number of Agencies	Proportion of Stories
26	0%
18	1 - 5
20	6 - 10
14	11 - 20
11	21 - 50
4	51 or more
7	No answer
100	

Table (8C) Number of stories on local air pollution estimated aired each month by local television and radio stations (combined) in district:

Number of Agencies	Number of Stories
10	None
51	1 - 5
10	6 - 10
5	11 - 20
7	21 or more
17	No answer
100	

Table (8D) Proportion of local air pollution stories on radio and television (combined) dealing, in whole or in part, with odor problems:

Number of Agencies	Proportion of Stories
26	0%
24	1 - 5
20	6 - 10
7	11 - 20
5	21 - 50
1	51 or more
17	No answer
100	

Table (9) Number of odor pollution studies (not further specified) conducted in district:

Number of Agencies	Number of Studies
51	None
14	1
7	2
2	3
1	4
3	5 to 9
4	10 or more
18	No answer
100	

Table (10) This question asked for additional comment and information (not already covered in the questionnaire) which they felt the National Air Pollution Control Administration should be aware of in relation to defining and assessing the nature and seriousness of odor pollution problems. The best way to present this information is to reprint the verbatim comments from the 36 agencies responding:

- Quantification of odor intensity needs more work. Qualification of what is nuisance, dangerous, etc., e.g. coffee odors; some find it offensive, others like it.

- Houston has the greatest concentration of the petroleum - petrochemical industry. Yet to fully assess the gaseous problem, but making some progress in that direction. Given more attention to the compounds involved than to the odors which may be generated. This is intended to explain the blanks in our responses.

- All odor complaints investigated and abated if possible under a general nuisance law. The field work is done primarily by sanitarians. There are no air pollution laws of any type in effect in Alabama.

- Subjective perceptions of pollution by people. For example, in this area open burning accounts for less than 1% of total pollution, and yet it receives more than half the attention of citizens and public officers.

- When odors occur here, they are usually due to some temporary condition which we try to uncover by investigation and then correct.

Table (10) (Cont'd)

- Under Question 5E, No. 1, the nature of the problem involves two refineries, one petrochemical plant and one contact process sulfuric acid plant. It is required that we differentiate the major source of the problem from the other industries. To assess this problem the authority is spending $7,000 on a gas chromatograph and accessories. This is the second year of operation of this authority and its regulations only became effective February 7, 1969.

- Odor instrumentation would be helpful in defining and assessing the problem.

- We are sometimes inclined to believe that odor problems might be easier handled under a simple nuisance ordinance. Enclosed is a copy of the Kansas City, Missouri, Nuisance Ordinance. Odor panels and other sophisticated methods often become very complicated.

- We are in the development stage of APC. The local ordinance has not been approved (6-70). To date little, except subjective evaluation by smelling, has been done on odors. At present we advise civil action against nuisance. On industrial complaints we usually first get a complaint on smoke or fine sawdust and when investigating an odor complaint may be made.

- Very difficult to abate, but have been successful in a few cases where industry was willing to help.

- I am pleased to see a study of this nature concerning odor problems. In my opinion, odor is our most difficult problem to handle.

- Unless the substance could be dangerous to health or property, I would rather treat it as a nuisance and have evaluations made by my trained staff and enforcement of existing ordinances and regulations along with corrective actions recommended by my office. The scentometer is the most useful evaluation tool and afterburners or scrubbers will remedy most air pollution problems.

- We have on two occasions been specifically denied the inclusion of the word "odor" in our enabling legislation by the State Legislature. Currently, I have another such bill before the legislature. We maintain that our present authority and definition of fumes is

Table (10) (Cont'd)

applicable, but realize we are on shaky ground. Corrections have come, nevertheless, based upon inspections and recommendations made. We have never tested legal authority in the courts.

- Colorado Springs has been noted as a tourist city. We have mostly clean industry and a good enforcement program on air pollution. The automobile is the largest pollution problem. We feel that one of the more important criteria is the source of the odor.

- We are in the Chicago metropolitan area so that the major newspaper and radio and TV station of Chicago cover this area. We have no serious odor pollution problems within our boundaries, however, problems beyond our boundaries sometime drift over to concern us.

- The two main odor problems originate outside our county - The Kraft Paper Mill in neighboring Carlton County, Minnesota, and the refinery in Superior, Wisconsin. The coffee-roasting odor and the acid odor from the pressed wood plant appear to the most serious local odor problems.

- Because we are understaffed, we have really not adequately approached this problem. We have received very few complaints and in most cases such complaints have been directed to Sanitation.

- Odors have varying effect on people. Unless an odor is objectionable or offensive to a majority in the area, corrective action is questionable.

- Referring back to Question 5, there are no odor problems. However, we receive many complaints about the odor from a paper mill located about 10 miles west of here, outside jurisdiction. Question 8, C and D - I have appeared on both radio and TV to discuss our air pollution problems and despite the fact that we have no jurisdiction over the paper mill, many of the questions and comments are about the odor from the plant.

- We feel that NAPCA should set forth further a list of standard methods and criteria on odor identification and control. Odor is not entirely an objective measurement, but can affect different people in different ways. Since the olfactory phenomena is not completely understood, nor the effects odors produce on

Table (10) (Cont'd)

individuals and property has not been extensively defined, odor abatement will be an extremely difficult task.

- Private nuisance complaints initiated by the affected persons would receive the most effective response at this time. In our area the odors prevent individuals from using the outdoor property in an enjoyable fashion.

- Air pollution project now in beginning stages. No odor control under way. Proposed for future.

- Most odor problems in Orange County are local in nature. Light manufacturing group. Oil field odors gathered and incinerated in most cases with results. The use of the Permit System for industrial operation is our strongest means of control.

- Public concern about objectionable odor is increasing. Public acceptance of objectionable odor is decreasing.

- Odors are not hard to detect, but they are difficult to define. More important is their control. More emphasis could be placed on odors arising from sewage treatment plants, waste disposal systems and control of feed lot odors.

- Odor and noise abatements, to my knowledge, has been minimized in our overall air pollution abatement endeavors. They should receive more attention and standard set for their control.

- Question 5E. Incinerators, spray paint operations and space heating problems are listed as a group due to large number of specific sources. Degree of seriousness should be more clearly defined to provide for greater degree of objectivity. Term may be expanded to include nuisance or health effects as a guide.

- Much of odor comes from chemical effluents present in very low concentrations. Special thought should be given to helping develop means of disposing of these effluents by destructive means. Industry has not taken proper cognizance of this problem.

- Odor depends on stagnation condition and wind direction. Chief source - coke operations. Particulate emissions more important. If these are decreased, odors also will decrease. Minor sewage problem. Most serious problem is particulate and SO_2, largely from heavy industry and power generation.

- Dade County. P.C. is collecting and evaluating data for a complete county-wide inventory on air and water pollution. The U.S. Public Health Service, Division of Air Quality and Emission Data in Durham, North Carolina, is at the present preparing a diffusion model for the Miami Air Quality Control Region.

- An inventory of industrial operation and emissions within one's jurisdiction is invaluable in assessing nature and seriousness of odor problem potential.

- Kraft Mill: Pilot work to modify black liquor oxidation system and for reduction of sulfur emission from the recovery boiler is in process now.

- This area, except for a few small sections, is not bothered with odor problems. Odors are generally not serious and can be considered infrequent within the City of Fort Worth.

- Odor problems not significant. Only one isolated textile finishing plant pointed out as occasional offender.

- Incinerator is a very successful way of dealing with odor. Odor pollution may be related to health - for people already ill. Most industries know when they have a problem such as the serious odor problem and through proper approaches much can be accomplished toward eliminating the problem.

- Suggest a better and more definitive means of determining quality and degree of odor be developed.

The following section of Appendix D includes:

(1) Cover letter mailed with questionnaire to chief officers of local air pollution control agencies

(2) Follow-up letter mailed to chief officers of local air pollution control agencies

(3) Questionnaire mailed to chief officers of local air pollution control agencies

COPLEY INTERNATIONAL CORPORATION

Economic Research • Corporate Planning • Systems Engineering • Management Services

Dear Sir:

Copley International Corporation has contracted with the NATIONAL AIR POLLUTION CONTROL ADMINISTRATION to conduct a nationwide survey on "odor" problems. Basically, it involves identification and assessment of odor problems in terms of industrial and other sources and areas affected.

Prerequisite to any detailed investigation into this problem is the gathering of professional opinion and information from local and regional air pollution control agencies. Your cooperation in providing us with some basic information is vital to the success of this survey.

One of the primary goals of this study is to develop data and recommendations on odors which can then be provided to local air pollution control agencies to assist them in establishing odor control criteria for their particular areas.

We have attached a questionnaire designed to obtain this information but yet to infringe upon your time as briefly as possible. The purpose of this questionnaire is to seek information which can be summarized, statistically and otherwise, to present an overview of the nation as a whole. Wherever possible, the questions have been structured so they can be answered with a check mark, a few numbers, or a few words. However, we do not intend for this approach to be restrictive, and you are encouraged to make comments wherever you feel they are needed.

Your cooperation, or that of the person on your staff with primary responsibility in this area, in completing and returning this questionnaire within the next seven days will be greatly appreciated.

Many thanks in advance for your help.

Sincerely,

Tom Copeland
Survey Director

TC/leh
Attachment

Western Division Offices:

7817 HERSCHEL AVENUE • P.O. BOX 1530 • LA JOLLA, CALIFORNIA 92037

TELEPHONE (714) 454-0391

COPLEY INTERNATIONAL CORPORATION

Economic Research • Corporate Planning • Systems Engineering • Management Services

Dear :

We have been commissioned by the National Air Pollution Control Administration to conduct a nationwide survey on odor pollution problems. A prerequisite to this study is the gathering of professional opinion and information from local and regional air pollution control agencies.

On September 3 we mailed a questionnaire to each director of a selected sample of air pollution control agencies. As yet we have not received your response and are concerned lest you may not have received the questionnaire or, perhaps, we have not made our questions clear.

If you have not received the questionnaire or if there is some uncertainty in interpreting our questions, would you please have someone on your staff notify us directly so we can iron out any problems and expedite the data assembly.

We realize our request may put a substantial demand upon limited time and manpower, but the information is vital to the success of this program, and we believe the results will benefit air pollution control agencies across the country.

Again, thanks for your assistance.

Sincerely,

Tom Copeland
Survey Director

THC/leh

Western Division Offices:

7817 HERSCHEL AVENUE • P.O. BOX 1530 • LA JOLLA, CALIFORNIA 92037

TELEPHONE (714) 454-0391

Budget Bureau No. 85-S69030
Approval Expires 12/31/69

Copley International Corporation, P. O. Box 1530, La Jolla, California 92037
(Under contract to the National Air Pollution Control Administration)

QUESTIONNAIRE FOR GOVERNMENTAL AIR POLLUTION AGENCIES: ODOR POLLUTION SURVEY

1) Would you please define the exact geographic boundary within which your agency has operational responsibility? (corporate city, county, cluster of counties, etc.)

_____

2) Approximately how many square miles does your district encompass?

_____ square miles.

3) Would you please estimate the current population within this district? (population within geographic boundary described in Question #1)

_____

4) A. What is the total annual budget for your agency?

_____

B. What proportion of your total annual budget would you estimate was applied to odor pollution problems during your last fiscal year?

_____% of total annual budget applied to odor pollution problems

5) In the past, odors have been considered as part of the general air pollution problem. Recently, however, odors have been the subject of separate interest and research activities aimed at identifying them, determining their likely sources, and learning more about public reaction to them. In line with these aims, the following set of questions attempts to determine the extent of odor pollution problems in your district.

5) A. **Please check one of the following:**

_____ **Your district has one or more odor pollution problems. (Please go on to Parts 5B, 5C, 5D and 5E)**

_____ **Your district has no odor pollution problems. (Skip to Question #8)**

B. How many complaints about odors has your agency received in the past twelve months?

_____ Number of odor complaints received.

C. During this period, what proportion of all air pollution complaints received by your agency were complaints about odors?

_____ % of total complaints were about odors.

D. Please describe whatever criteria your agency may have for defining an odor pollution problem: (Leave blank if no criteria have been established.)

_____

_____

_____

_____

_____

5) E. For each odor pollution problem recognized in your district, please complete the following table. (Please attach a map of your district on which you have outlined the areas affected by each odor problem listed below.)

Odor Problem No. (for each individual source)	Source of Odor[1]	No. of Square Miles Affected (estimate)	Population Affected (estimate)	Average No. of Complaints Per Month	Degree of Seriousness[2]	Situation Over Time[3]
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

1 Industrial or other source (Please list, if possible, the specific type of industrial or other source of odor.)
2 Rank "1" to "5" as follows: 5-Critical, 4-Very serious, 3-Serious, 2-Moderately serious, 1-Not serious.
3 Rank "1" to "5" as follows: 5-More serious each year, 4-Continuously serious, 3-Occasionally serious, 2-Less serious each year, 1-Not serious.

5) E. (continued)

Odor Problem No. (for each individual source)	Source of Odor[1]	No. of Square Miles Affected (estimate)	Population Affected (estimate)	Average No. of Complaints Per Month	Degree of Seriousness[2]	Situation Over Time[3]
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						

1 Industrial or other source (Please list, if possible, the specific type of industrial or other source of odor.)
2 Rank "1" to "5" as follows: 5-Critical, 4-Very serious, 3-Serious, 2-Moderately serious, 1-Not serious.
3 Rank "1" to "5" as follows: 5-More serious each year, 4-Continuously serious, 3-Occasionally serious, 2-Less serious each year, 1-Not serious.

5) E. (continued)

Odor Problem No. (for each individual source)	Source of Odor[1]	No. of Square Miles Affected (estimate)	Population Affected (estimate)	Average No. of Complaints Per Month	Degree of Seriousness[2]	Situation Over Time[3]
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						

1 Industrial or other source (Please list, if possible, the specific type of industrial or other source of odor.)
2 Rank "1" to "5" as follows: 5-Critical, 4-Very serious, 3-Serious, 2-Moderately serious, 1-Not serious.
3 Rank "1" to "5" as follows: 5-More serious each year, 4-Continuously serious, 3-Occasionally serious, 2-Less serious each year, 1-Not serious.

6) If you listed your district (in Question #5E) as having an odor problem(s), from industrial and/or other sources, would you please explain briefly how your agency assesses an odor problem(s):

A. In order to assess an odor pollution problem(s), what types of people (and how many of each type) does your agency contact, such as, retail and commercial businessmen, industrial management leaders, professional people, elected officials, the general public, etc.? Who usually initiates the contact, the people or your agency? Is the information received then recorded in an informal style, or are formal guidelines used, i.e., are comments simply recorded for later analysis or are specific details collected by asking specific questions of the people contacted?

Types of People Contacted	How Many People Were Contacted	Who Initiated Contact	Formal or Informal Data Collected

B. How is your technical staff used in assessing an odor pollution problem(s)? What are some of the tasks they perform?

6) C. What type(s) of testing and/or measurement, if any, does your agency employ in assessing an odor pollution problem(s)? (Please indicate the types of test equipment used as well as a brief statement of test methodology.)

_____

_____

_____

_____

_____

D. What other comments can you add in relation to your agency's methodology in identifying and assessing odor pollution problems?

_____

_____

_____

_____

_____

_____

_____

7) A. What has your agency done to abate the odor problems that you have listed in Question #5E? (Leave blank if no abatement activities have been undertaken.)

_____

_____

_____

_____

_____

7) B. What means for the abatement of odor pollution problems are currently available to your agency?

_____

_____

_____

_____

_____

8) A. About how many stories on local air pollution problems would you estimate are printed each month by the major newspapers in your district?

_____ air pollution stories per month in newspaper.

B. What proportion of these local air pollution stories in newspapers would you estimate deal with "odor" problems in whole or in part?

_____ % air pollution newspaper stories dealing with odor problems.

C. About how many stories on local air pollution problems would you estimate the major television and radio stations (combined) in your district carry each month?

_____ air pollution stories per month on television and radio (combined).

D. What proportion of these local air pollution stories on television and radio (combined) would you estimate deal with "odor" problems in whole or in part?

_____ % television and radio (combined) air pollution stories dealing with odor problems.

9) How many studies (if any) have been done on odor pollution in your district?

_____ Number of odor pollution studies conducted in district.

10) Please use the remaining space on this questionnaire to add any information (not already covered in the questions) you feel the National Air Pollution Control Administration should be aware of in relation to defining and assessing the nature and seriousness of odor pollution problems.

Agency Name _____

Agency Address _____
(Street) (City) (State) (Zip)

Agency Phone _____

Name and Title of Agency Director _____

Name and Title of Person
Completing Questionnaire _____

If any odor studies have been conducted in your district and you have copies of the reports available, we would very much appreciate receiving a copy of each.

Again, many thanks for your cooperation. Please return this completed questionnaire as soon as possible to:

Tom Copeland
Copley International Corporation
P. O. Box 1530
La Jolla, California 92037

ERIE COUNTY DEPARTMENT OF HEALTH
Air Pollution Control Section
134 West Eagle Street - Buffalo, New York 14202

William F. Millerschoen
Associate Scientist

COMPLAINT FORM

1. Name and address of Source(s) of Air Pollution (Company name or person causing problem):

2. Your name and address:

3. Nature of problem (smoke, odor etc - describe in detail):

4. Time of day when above emissions normally occur:

Thank you for the above information. Our staff will investigate and endeavor to arrive at a fair solution to the problem.

_____
Complaintant's Signature

NEW JERSEY STATE DEPARTMENT OF HEALTH

Division of Clean Air and Water
Air Pollution Control

Month_____

PERSON REPORTING_____

ADDRESS_____
(number (street) (municipality) (county)

Location where odor was noticed_____

Suspected Source_____

Instructions (1) type of odor noticed (describe in terms of familiar odors such as sweet, sour, rancid, vinegar, ammonia, fruity, fishy, greasy, skunky, rotten eggs, moldy, burnt rubber.

(2) strength of odor - check appropriate column

	TIME		TYPE OF ODOR NOTICED	STRENGTH OF ODOR		
DATE	FROM	TO		STRONG	MOD.	FAINT

NEW JERSEY STATE DEPT. OF HEALTH
AIR POLLUTION CONTROL PROGRAM
SOUTHERN FIELD OFFICE, 2nd FLOOR
5635 WESTFIELD AVENUE
PENNSAUKEN, NEW JERSEY 08110

COMPLAINT FORM

DATE: _____ TELEPHONE: _____

NAME & ADDRESS OF COMPLAINANT:

_____

_____

NAME & LOCATION OF ALLEGED VIOLATOR:

_____

_____

_____

NATURE OF VIOLATION:

_____

_____

_____

_____

M5324 BY: _____

NIAGARA COUNTY DEPARTMENT OF HEALTH
AIR RESOURCES DIVISION

Code Activity _____

Code Location _____

Service Request No. _____

Date Complaint Received _____

Complainant _____ **Address** _____

Suspected Source _____ **Address** _____

Date _____ **Time** _____ **A.M.** **P.M.**

Type of Complaint:

Odor _____ Description _____

Smoke _____ Description _____

Particulate _____ Description _____

Open Burning _____ Description _____

Other _____ Description _____

Wind Direction _____ Estimated Velocity _____

Person(s) Contacted at Source:

1. _____ Title _____

2. _____ Title _____

3. _____ Title _____

4. _____ Title _____

Reason for Emission: _____

Measures Taken to Correct Situation: _____

Remarks: _____

Date Abated _____ **by** _____

(FASCIMILE)
COMPLAINT

CITY OF KANSAS CITY, MO. AIR POLLUTION CONTROL Ser. No.____

ALLEGED SOURCE

Location _____
Street and Number
Name _____

COMPLAINANT _____
Name
Address _____
Street and Number
Zip Code _____ _____
Phone No.

REMARKS _____

_____

_____

_____

_____

_____

_____

Received by _____
Name
Via Phone ( ) Letter ( ) Personal Call ( )

Assigned to _____
Inspector's Name

Date 1 2 3 4 5 6 7 8 9 10 11
[ ][ ][ ][ ][ ][ ][ ][ ][0][0][3]
Hour Month Day Year Agency

Municipality 12 13 14
[--][--][--]
Code

Complainant's Grid No. 15 16 17 18 19 20 [ ][ ][ ][ ][ ][ ]

21 22 23
[ ][ ][ ]
Pollutants

1. Smoke
2. Dust
3. Odor
4. Soot
5. Fly ash
6. Fumes
7. Acid mist
8. Other pollutants

Effects 24 25 26
[ ][ ][ ]

1. Soiling
2. Eye irritation
3. Respiratory irritation
4. Nausea
5. Plant damage
6. Material damage
7. Reduced visibility
8. Other

Date and Time of Incident 27 28 29 30 31 32 33 34
[ ][ ][ ][ ][ ][ ][ ][ ]
Hour Month Day Year

Weather 35 [ ]
1. Clear 2. Cloudy 3. Fog
4. Rain 5. Snow

Wind Direction & Speed (Actual) 36 37 38 39 40
[ ][ ][ ][ ][ ]

No. of People Affected 41 [ ]
Code _____
Number

INVESTIGATION

Person Contacted _____

Title _____ Phone No. _____

Source _____
Name

Address _____
Street and Number

Recommendations and Disposition _____

_____

_____

Declared Inactive By _____

5300-090

Date investigated 42 43 44 45 46 47
[ ][ ][ ][ ][ ][ ]
Month Day Year

Investigator 48 49
[ ][ ]
Code _____
Name

Class of Source(s) 50 51 52 53
[ ][ ][ ][ ]
Code

Municipality 54 55 56
[--][--][--]
Code _____
Name

Grid Number 57 58 59 60 61 62
[ ][ ][ ][ ][ ][ ]

Type(s) of Collectors 63 64 65
[ ][ ][ ]
Code

APPENDIX E

LOCATION OF FIELD INVESTIGATION SITES AND PUBLIC OPINION SURVEY AREAS

APPENDIX E

LOCATION OF FIELD INVESTIGATION SITES AND PUBLIC OPINION SURVEY AREAS

The purpose of this appendix is to provide data on the locations of the most serious sources of odors, the neighborhoods affected, and the public opinion survey test and control areas in the principal cities of each of the seven metropolitan areas investigated. The locations are presented in graphical form in Figures E-1 through E-7.

Environmental Science Services Administration Local Climatological (monthly) Data Sheets are included for each of the cities investigated. Note that the dates of the Engineering-Science, Inc., technical field activities are circled; the dates of the Copley International Corporation public opínion surveys are enclosed in brackets.

Socio-economic data are provided for comparison of the public opinion survey test and control areas in each city. Some of the percentage columns do not total 100 percent due to computer rounding.

LEGEND

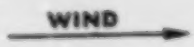
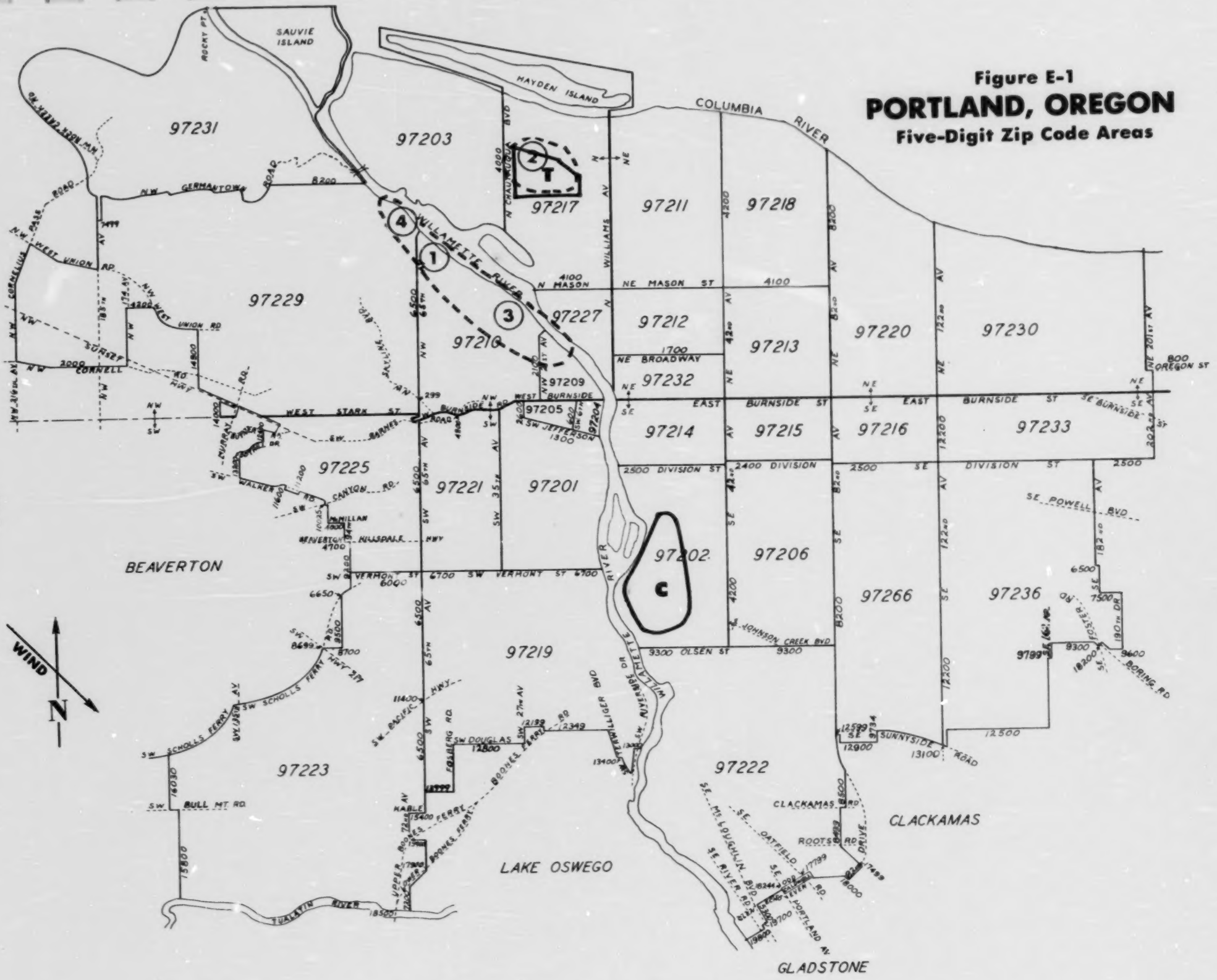
1		Industrial odorant source location investigated by Engineering-Science, Inc. Numbers within the circles indicate the seriousness of malodor ranked in the declining order. Letters within the circles represent the alphabetical order of other unranked malodorous sources.
2		Location of a natural odorant source or a complex of industrial odorant sources, i.e., a malodorous area.
3		Area affected by odor(s) during the field investigation activities.
4		Test area (near the odorant source) within which a public attitude survey was conducted by Copley International Corporation.
5		Control area (away from the odorant source) within which a public attitude survey was conducted by Copley International Corporation.
6		Normal wind direction.

Figure E-1

PORTLAND, OREGON

Five-Digit Zip Code Areas



LOCAL CLIMATOLOGICAL DATA

U. S. DEPARTMENT OF COMMERCE - MAURICE H. STANS, Secretary
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

PORTLAND, OREGON
INTERNATIONAL AIRPORT
SEPTEMBER 1969

Latitude 45° 36′ N Longitude 122° 36′ W Elevation (ground) 21 ft. Standard time used: PACIFIC

Date	Temperature (°F) Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days (Base 65°) Heating	Cooling	Weather types shown by code 1-9 on dates of occurrence (1 Fog, 2 Heavy Fog, 3 Thunderstorm, 4 Sleet, 5 Hail, 6 Glaze, 7 Duststorm, 8 Smoke, Haze, Blowing Snow, 9 Snow)	Snow, Sleet, or Ice on ground at 04AM (In.)	Precipitation Water equivalent (In.)	Snow, sleet (In.)	Avg. station pressure (In.) Elev. 39 feet m.s.l.	Wind Resultant direction	Resultant speed (m.p.h.)	Average speed (m.p.h.)	Fastest mile Speed (m.p.h.)	Fastest mile Direction	Sunshine Hours and tenths	Sunshine Percent of possible	Sky cover (Tenths) Sunrise to sunset	Sky cover (Tenths) Midnight to midnight	Date
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	90	52	71	6	52	0	6		0	0	0	29.90	32	6.0	8.1	16	W	13.3	100	0	0	1
2	75	51	63	-2	51	2	0		0	0	0	30.07	32	6.2	7.8	21	W	10.7	81	6	5	2
3	62	49	56	-9	45	9	0		0	T	0	30.09	27	4.7	5.6	11	NW	2.7	20	10	9	3
4	67	51	59	-6	48	6	0		0	.02	0	29.99	32	1.2	3.2	11	NW	6.4	49	9	9	4
5	72	46	59	-6	46	6	0	1 8	0	0	0	29.98	33	3.9	5.0	11	NW	11.6	89	4	3	5
6	83	46	65	1	48	0	0		0	0	0	30.03	31	5.1	5.6	14	NW	13.0	100	0	0	6
7	92*	50	71	7	51	0	6		0	0	0	29.94	30	4.3	5.5	15	NW	12.6	97	2	3	7
8	84	55	70	6	56	0	5		0	T	0	29.81	28	1.3	3.5	8	NW	7.3	57	10	8	8
9	86	56	71	7	56	0	6	8	0	0	0	29.93	32	3.0	4.2	11	NW	11.8	91	2	2	9
10	90	54	72	8	56	0	7	8	0	0	0	29.96	31	3.6	3.9	17	NW	12.8	100	0	1	10
11	87	59	73	10	54	0	8	8	0	0	0	29.95	32	3.0	5.2	14	NW	12.8	100	0	0	11
12	77	57	67	4	55	0	2		0	.01	0	29.96	34	3.8	4.6	14	NW	6.8	54	5	6	12
13	70	52	61	-2	50	4	0		0	.07	0	30.00	31	4.6	5.6	15	NW	8.1	64	6	5	13
14	70	42	56	-7	44	9	0	2	0	0	0	30.08	35	5.3	6.9	13	NW	11.9	94	1	1	14
15	75	42*	59	-4	42	6	0		0	0	0	29.96	31	.7	4.0	10	N	11.0	88	7	6	15
16	67	54	61	-2	44	4	0	1 8	0	.12	0	29.93	19	1.5	4.0	8	W	2.3	18	10	10	16
17	68	52	60	-2	58	5	0	1 3 8	0	2.23	0	29.78	11	5.7	5.9	18	SW	0.3	2	10	10	17
18	68	54	61	-1	55	4	0		0	.19	0	29.83	18	8.6	8.9	18	SW	1.4	11	9	8	18
19	63	58	61	-1	56	4	0	1	0	.42	0	29.84	17	7.6	7.9	11	S	0.0	0	10	10	19
20	67	56	62	0	54	3	0		0	.07	0	29.86	16	3.8	4.9	12	S	3.6	29	10	9	20
21	66	52	59	-3	52	6	0	1	0	.14	0	29.97	19	3.1	4.2	9	S	3.5	29	10	9	21
22	72	58	65	4	57	0	0	1	0	.25	0	29.88	17	6.4	7.9	15	SW	3.9	32	10	10	22
23	72	59	66	5	54	0	1	1	0	.08	0	29.89	20	8.3	9.5	17	W	7.2	59	9	9	23
24	72	55	64	3	52	1	0		0	T	0	29.97	16	5.1	5.9	13	SE	5.9	49	10	10	24
25	69	56	63	2	53	2	0	1	0	.01	0	29.98	30	3.8	8.2	13	NW	7.2	60	8	8	25
26	73	49	61	1	50	4	0	2	0	0	0	29.84	30	3.2	4.0	9	W	8.7	73	7	6	26
27	71	48	60	0	53	5	0	1 8	0	.01	0	29.81	08	1.0	2.7	7	SE	5.9	49	10	9	27
28	75	58	67	7	57	0	2	1 8	0	.09	0	29.89	33	.6	2.5	5	E	7.3	61	8	8	28
29	71	57	64	5	54	1	0	2 8	0	0	0	29.90	22	3.6	4.3	13	W	1.6	14	10	9	29
30	65	57	61	2	54	4	0	1	0	.15	0	29.90	20	12.3	12.9	28	S	3.4	29	9	9	30

Sum	2219	Sum	1583					Total	85	Total	43	Total	3.86	Total	0	For the month:	29.93	25	1.5	5.7	28	S	Total	219.0	% for	Sum 202	Sum 192
Avg.	74.0	Avg.	52.8	Avg.	63.4	Dep.	1.2	Avg.	52	Dep.		Dep.									Date:	30	Possible	379.9	month	57	Avg. 6.7	Avg. 6.4
								Dep.	-29			Dep.	2.23														

Number of days				Season to date	
Maximum Temp.		Minimum Temp.		Total	Total
≥ 32°	≤ 90° ‡	≤ 32°	≤ 0°	124	297
0	3	0	0	Dep. -42	Dep.

Number of days	
Precipitation ≤ .01 inch	15
Snow, sleet ≤ 1.0 inch	0
Thunderstorms	1
Heavy fog X	3

Greatest in 24 hours and dates				Greatest depth on ground of snow, sleet or ice and date
Precipitation		Snow, Sleet		
2.23	17	0		0

HOURLY PRECIPITATION (Water equivalent in inches)

Day	A.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	P.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	Day
1																									1
2																									2
3			T				T	T		T	.02														3
4																									4
5																									5
6																									6
7																	T	T							7
8																									8
9																									9
10																									10
11																								.01	11
12																									12
13	.03	T	T					T	.04		T	T	T	T	T										13
14																									14
15									T		T	.02	T	T	.03	T	T		T	.02	.03	.02	T		15
16											T	.11	.01	.01	T	T	.11	.39	.08	.56	.20	.48	.01	.02	16
17	.02	T					T	T	.14	.03	.06	T	.01	T	T	.04	T	.10	.03	T					17
18	T	.02														T	.06	T							18
19	T	T	.01	.02	.02	.01	T	T	T	.04	.04	.02	.10	.10	T	T	T	T	.02	.04					19
20										T	T	.01		T	T	T	T	T	.02	T	.02	.07	.01	.02	20
21																		T	.02	.04	.02	.02	.04	.04	21
22	.01	.01	.01	T				T	T	T							T	.04	.02	.04	.02	.02	.04	.04	22
23	T	T	.04	.02	.02	T												T		T	T	T			23
24							T																		24
25			T	T	T	T	.01	T																	25
26							T	T	.01																26
27																						T	T		27
28		.01	.04	.02	.02																				28
29		T		.01	.03	T	T	T	.01	.03	.01	.05	.01	T											29
30																									30

- * Extreme temperatures for the month. May be the last of more than one occurrence.
- – Below zero temperature or negative departure from normal.
- ‡ ≥ 70° at Alaskan stations.
- \+ Also on an earlier date, or dates.
- X Heavy fog restricts visibility to ¼ mile or less.
- T In the Hourly Precipitation table and in columns 9, 10, and 11 indicates an amount too small to measure.

The season for degree days begins with July for heating and with January for cooling.
Data in columns 6, 12, 13, 14, and 15 are based on 8 observations per day at 3-hour intervals.
Wind directions are those from which the wind blows. Resultant wind is the vector sum of wind directions and speeds divided by the number of observations. Figures for directions are tens of degrees from true North; i.e., 09 = East, 18 = South, 27 = West, 36 = North, and 00 = Calm. When directions are in tens of degrees in Col. 17, entries in Col. 16 are fastest observed 1-minute speeds. If the / appears in Col. 17, speeds are gusts.

Any errors detected will be corrected and changes in summary data will be annotated in the annual summary.

Subscription Price: Local Climatological Data $1.00 per year including annual Summary if published. Single copy: 10 cents for monthly Summary; 15 cents for annual Summary. Checks or money orders should be made payable and remittances and correspondence should be sent to the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

I certify that this is an official publication of the Environmental Science Services Administration, and is compiled from records on file at the National Weather Records Center, Asheville, North Carolina 28801.

William H. Haggard

Director, National Weather Records Center

SUMMARY BY HOURS

Hour (Local time)	Averages: Sky cover (In tenths)	Station Pressure (In.)	Dry bulb (°F)	Wet bulb (°F)	Rel. hum. %	Dew point (°F)	Wind speed (m.p.h.)	Resultant wind: Direction	Resultant wind: Speed (m.p.h.)
01	6	29.94	59	55	80	52	4.4	24	1.2
04	6	29.93	57	54	83	51	3.7	16	1.4
07	7	29.95	57	54	84	52	4.3	16	1.5
10	7	29.95	64	57	67	52	5.0	20	1.6
13	7	29.93	70	59	55	52	7.5	25	2.8
16	6	29.90	72	60	51	52	8.5	28	3.0
19	5	29.91	65	58	65	52	7.3	30	2.9
22	6	29.93	61	56	75	53	5.2	27	2.5

USCOMM—ESSA—ASHEVILLE 350

OBSERVATIONS AT 3-HOUR INTERVALS

Columns: HOUR; SKY COVER (Tenths); CEILING (Hnds. of ft.); VISIBILITY (Whole miles / 16ths mile); WEATHER; DRY BULB (°F); WET BULB (°F); REL. HUM. (%); DEW PT. (°F); WIND DIR.; WIND SPEED (Knots)

DAY 01

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	0	UNL	15		64	56	58	49	31	5
04	0	UNL	15		55	51	77	48	12	3
07	0	UNL	20		59	56	81	53	09	3
10	0	UNL	25		76	62	43	52	29	7
13	0	UNL	30		86	65	31	52	28	8
16	0	UNL	30		89	67	30	54	34	9
19	0	UNL	30		78	64	44	54	32	13
22	0	UNL	15		66	59	65	54	32	8

DAY 02

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	0	UNL	15		60	57	81	54	34	4
04	8	13	15		56	54	90	53	00	0
07	10	20	25		60	57	84	55	00	0
10	7	38	30		67	59	63	54	09	6
13	10	30	40		71	61	53	53	30	13
16	3	UNL	40		72	60	46	50	32	12
19	0	UNL	30		61	54	60	47	32	11
22	0	UNL	15		56	50	64	44	32	8

DAY 03

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	10	45	15		55	50	69	45	23	4
04	10	45	15		54	50	75	46	22	3
07	8	45	20		54	50	75	46	24	4
10	10	40	20		59	50	51	41	30	6
13	10	45	30		61	52	54	44	24	4
16	10	60	20		62	54	58	47	29	4
19	10	45	35		60	52	56	44	31	10
22	4	UNL	15		54	50	77	47	26	4

DAY 04

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	10	30	15		54	50	75	46	26	3
04	10	45	15		56	51	72	47	00	0
07	10	28	10	RW	55	52	80	49	10	0
10	10	18	4	RW	54	53	93	52	18	3
13	10	45	20		60	55	72	51	14	3
16	9	65	35		66	57	54	49	35	4
19	7	CIR	35		61	53	56	45	35	5
22	7	CIR	15		57	52	69	47	32	4

DAY 05

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	4	UNL	15		53	51	86	49	35	3
04	0	UNL	15		50	48	89	47	30	5
07	7	UNL	7		49	48	93	47	36	4
10	3	UNL	8		58	51	62	45	00	0
13	3	UNL	25		66	55	47	45	22	4
16	2	UNL	30		72	58	35	43	35	8
19	0	UNL	30		65	54	49	45	34	7
22	0	UNL	15		58	53	72	49	29	4

DAY 06

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	0	UNL	15		54	51	83	49	35	3
04	0	UNL	10		49	48	93	47	00	0
07	0	UNL	10		51	49	86	47	00	0
10	0	UNL	20		63	55	58	48	27	3
13	0	UNL	30		76	60	37	48	29	8
16	0	UNL	35		82	62	29	47	33	10
19	0	UNL	35		75	60	40	49	32	11
22	0	UNL	15		65	56	56	49	00	0

DAY 07

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	0	UNL	15		60	54	65	48	00	0
04	0	UNL	15		59	53	67	48	30	4
07	0	UNL	20		56	54	75	50	00	0
10	0	UNL	20		74	60	41	49	31	3
13	1	UNL	50		89	66	28	52	30	10
16	3	UNL	45		89	65	25	49	35	10
19	8	CIR	15		76	62	45	53	26	7
22	8	CIR	15		71	62	57	55	25	4

DAY 08

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	7	150	15		63	59	76	56	00	0
04	3	UNL	15		59	56	81	53	00	0
07	9	150	30		59	56	84	54	23	3
10	10	CIR	15		74	61	46	52	33	5
13	10	90	20		80	64	41	54	30	6
16	10	100	12		81	66	42	56	26	4
19	10	130	15		72	64	64	59	12	6
22	4	UNL	15		68	63	76	60	00	0

DAY 09

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	0	UNL	10		59	57	90	56	27	3
04	2	UNL	10		61	58	81	55	00	0
07	0	UNL	7		61	57	78	54	17	3
10	4	UNL	6	K	72	62	57	56	00	0
13	2	UNL	7		80	64	41	54	30	4
16	2	UNL	8		85	68	39	57	30	6
19	1	UNL	15		76	64	52	57	34	7
22	0	UNL	15		68	61	68	57	32	6

DAY 10

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	3	UNL	15		62	58	78	55	00	0
04	1	UNL	10		60	57	81	54	33	3
07	1	UNL	4	K	60	57	84	55	00	0
10	0	UNL	4	K	70	62	61	56	27	3
13	0	UNL	7		85	68	40	58	33	6
16	0	UNL	15		90	68	31	55	33	8
19	0	UNL	10		80	64	41	54	29	7
22	0	UNL	12		73	63	57	57	00	0

DAY 11

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	0	UNL	15		68	60	61	54	32	6
04	0	UNL	8		63	58	75	55	00	0
07	0	UNL	6	K	63	58	73	54	33	4
10	0	UNL	6	K	73	62	53	55	00	0
13	0	UNL	6	K	82	66	40	55	32	7
16	0	UNL	8		86	66	33	54	34	10
19	0	UNL	20		74	62	48	53	32	3
22	0	UNL	15		64	58	68	53	30	6

DAY 12

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	0	UNL	15		60	57	81	54	32	6
04	10	8	7		58	56	87	54	04	4
07	10	11	8		59	56	84	54	34	3
10	10	14	15		60	57	81	54	00	0
13	0	UNL	20		71	63	61	57	00	0
16	0	UNL	40		77	65	50	57	00	0
19	2	UNL	20		68	61	68	57	35	12
22	9	40	15		64	59	75	56	27	5

DAY 13

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	10	23	10	R	60	58	87	56	29	3
04	8	55	15		60	56	78	53	32	6
07	5	UNL	20		58	55	81	52	00	0
10	5	UNL	30		63	58	73	54	20	4
13	8	50	40		67	57	53	49	30	6
16	4	UNL	40		70	57	44	47	34	7
19	0	UNL	20		62	52	50	43	32	6
22	0	UNL	15		56	50	64	44	32	5

DAY 14

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	0	UNL	15		54	50	77	47	33	5
04	0	UNL	15		47	45	86	43	00	0
07	4	UNL	7		47	46	93	45	12	4
10	4	UNL	10		60	53	60	46	03	3
13	0	UNL	30		66	53	39	40	01	10
16	0	UNL	40		69	54	36	41	35	9
19	1	UNL	20		62	52	50	43	33	8
22	0	UNL	15		57	51	64	45	32	9

DAY 15

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	0	UNL	15		51	47	77	44	35	3
04	0	UNL	15		47	45	86	43	03	4
07	9	UNL	30		47	45	86	43	03	0
10	7	UNL	30		58	50	58	43	32	4
13	8	UNL	30		70	54	31	38	31	4
16	10	UNL	30		73	56	26	38	17	6
19	10	UNL	15		67	54	39	41	14	4
22	10	CIR	15		60	51	54	43	27	3

DAY 16

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	10	130	15		59	50	51	41	21	3
04	10	120	15		56	48	55	40	12	3
07	10	120	20		58	49	51	40	14	3
10	10	75	35		65	51	34	36	20	4
13	10	46	20		62	51	46	41	09	4
16	10	34	8	R	59	54	72	50	00	0
19	10	4	3	RK	55	53	90	52	29	6
22	10	42	3	RFK	54	53	93	52	26	5

DAY 17

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	10	40	4	RFK	57	53	90	54	00	0
04	10	80	15		60	58	87	56	12	8
07	10	40	7	R	61	58	84	56	15	5
10	10	45	7	R	62	60	87	58	11	6
13	10	40	7	R	64	62	87	60	11	7
16	10	40	20		65	63	76	60	11	7
19	10	28	8	R	61	60	97	60	09	3
22	10	17	8	RW	63	61	90	60	12	5

DAY 18

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	10	30	15		62	60	87	58	20	3
04	0	UNL	15		58	56	87	54	17	3
07	6	40	20		59	56	84	54	16	8
10	10	40	25		64	59	73	55	16	7
13	10	40	25		68	58	55	51	19	13
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	10	15	8	RW	60	58	87	56	18	10
22	9	44	15		59	57	87	55	15	6

DAY 19

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	10	38	15	RW	60	57	84	55	17	6
04	10	38	8	RW	60	57	84	55	16	8
07	10	12	15	RW	59	57	87	55	19	9
10	10	40	7	R	60	58	87	56	18	8
13	10	15	5	R	61	59	87	57	19	7
16	10	45	20	R	61	58	84	56	17	9
19	9	40	15		59	57	87	55	15	6
22	10	31	15		59	57	87	55	14	5

DAY 20

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	10	70	15		58	56	87	54	12	6
04	10	80	15		58	56	87	54	11	6
07	10	90	40		58	56	87	54	12	5
10	10	40	15	RW	62	57	73	54	00	0
13	10	35	20		64	58	70	54	21	5
16	10	30	25		65	58	65	52	19	10
19	8	90	15	RW	62	58	81	56	15	4
22	9	70	15		59	57	90	56	00	0

DAY 21

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	9	36	15		56	54	87	52	20	6
04	4	UNL	15		53	53	86	51	00	0
07	10	CIR	40		55	52	83	50	14	6
10	10	120	30		61	56	72	52	18	6
13	10	110	35		64	57	65	51	23	5
16	10	55	30		65	57	59	50	23	8
19	10	45	10	R	61	58	81	55	12	4
22	10	12	3	R	55	55	100	55	00	0

DAY 22

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	10	4	2	LF	59	57	90	56	12	4
04	10	11	6	F	60	58	90	57	12	6
07	10	36	30		60	58	90	57	11	6
10	10	35	20		63	60	84	58	13	4
13	10	35	20		69	62	68	58	20	7
16	10	35	30		69	61	63	56	19	14
19	10	65	10	R	61	59	87	57	18	5
22	10	17	10	R	61	58	84	56	20	9

DAY 23

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	10	13	15		61	59	87	57	19	11
04	10	9	7	R	61	59	87	57	20	12
07	8	90	10		60	57	84	55	21	9
10	10	95	20		65	59	73	56	19	12
13	10	170	30		70	60	55	53	20	10
16	10	35	30		66	58	61	52	29	8
19	8	35	15		61	55	70	51	00	0
22	10	75	15		60	56	75	52	19	4

DAY 24

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	10	60	15		58	55	81	52	10	6
04	10	80	15		57	54	80	51	00	0
07	10	75	15		58	55	81	52	12	4
10	9	65	30		65	58	61	50	14	5
13	10	65	30		69	58	51	50	18	10
16	8	65	30		71	60	49	51	18	5
19	10	44	14	R	65	59	70	55	19	10
22	10	40	15		65	59	70	55	14	3

DAY 25

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	10	29	15		62	58	81	56	20	9
04	10	30	10		61	58	84	56	21	5
07	10	17	6	RWF	59	57	90	56	32	14
10	9	50	20		63	57	70	53	36	5
13	8	45	20		66	58	59	51	12	5
16	4	UNL	30		69	58	51	50	32	4
19	4	UNL	15		63	55	60	49	34	8
22	7	UNL	15		58	54	75	50	30	9

DAY 26

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	6	120	15		54	51	83	49	03	4
04	4	UNL	10		52	50	86	48	00	0
07	8	4	0	* F	51	50	93	49	00	0
10	6	UNL	8		59	54	72	50	00	0
13	8	UNL	30		70	59	51	51	30	7
16	8	UNL	30		73	61	50	53	30	9
19	1	UNL	15		63	57	68	52	29	4
22	3	UNL	15		57	54	80	51	27	4

DAY 27

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	6	UNL	15		56	52	86	50	00	0
04	6	UNL	12		51	49	86	47	11	3
07	10	120	10		53	52	93	51	00	0
10	9	120	8		60	56	79	52	36	3
13	10	120	6	K	66	59	68	56	00	4
16	10	100	7		70	61	59	55	09	5
19	10	65	10		65	61	78	58	00	0
22	10	130	8	RWK	62	60	87	58	23	6

DAY 28

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	10	60	5	GFK	61	59	90	58	00	0
04	10	6	2	F	60	59	93	58	00	0
07	10	55	7		57	57	100	57	11	5
10	10	80	4	K	65	60	75	57	08	4
13	7	80	6	K	72	61	53	54	32	3
16	8	CIR	6	K	75	63	50	55	00	0
19	0	UNL	12		65	60	75	57	23	5
22	6	UNL	12		61	59	87	57	29	4

DAY 29

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	8	UNL	6	F	59	58	93	57	00	0
04	10	3	1	F	58	57	93	56	00	0
07	10	8	1	* F	59	58	93	57	00	0
10	10	9	2	FK	62	59	84	57	16	3
13	10	25	5	K	66	61	73	57	00	0
16	10	65	25		69	59	55	52	24	12
19	5	UNL	15		61	54	65	48	24	9
22	10	40	15		61	55	67	50	19	10

DAY 30

HOUR	SKY COVER	CEILING	VIS.	WEATHER	DRY BULB	WET BULB	REL. HUM.	DEW PT.	DIR.	SPEED
01	10	40	15		59	58	79	51	18	10
04	10	40	15	R	58	58	81	52	18	9
07	10	40	20		58	55	81	52	18	12
10	10	14	5	R	58	55	84	53	20	17
13	10	12	3	RW	60	58	87	56	20	18
16	6	CIR	30		65	60	78	57	21	15
19	6	75	15		60	57	81	54	20	5
22	10	48	15		56	56	84	54	18	6

NOTES

CEILING COLUMN–

UNL indicates an unlimited ceiling.
CIR indicates a cirriform cloud ceiling of unknown height.

WEATHER COLUMN–

*	Tornado
T	Thunderstorm
Q	Squall
R	Rain
RW	Rain showers
ZR	Freezing rain
L	Drizzle
ZL	Freezing drizzle
S	Snow
SP	Snow pellets
IC	Ice crystals
SW	Snow showers
SG	Snow grains
E	Sleet
A	Hail
AP	Small hail
F	Fog
IF	Ice fog
GF	Ground fog
BD	Blowing dust
BN	Blowing sand
BS	Blowing snow
BY	Blowing spray
K	Smoke
H	Haze
D	Dust

WIND COLUMNS–

Directions are those from which the wind blows, indicated in tens of degrees from true North; i. e., 09 for East, 18 for South, 27 for West. Entry of 00 in the direction column indicates calm.

Speed is expressed in knots; multiply by 1.15 to convert to miles per hour.

ADDITIONAL DATA
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STATION: PORTLAND OREGON YEAR & MONTH: 69 09

LOCAL CLIMATOLOGICAL DATA

U.S. DEPARTMENT OF COMMERCE
MAURICE H. STANS, Secretary
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

PORTLAND, OREGON
INTERNATIONAL AIRPORT
OCTOBER 1969

Latitude 45° 35' N   Longitude 122° 36' W   Elevation (ground) 21 ft   Standard time used: PACIFIC

Date	Temp. Maximum	Temp. Minimum	Temp. Average	Departure from normal	Average dew point	Degree days Heating	Degree days Cooling	Weather types (code 1-9)	Snow, sleet, or ice on ground at 04AM (In.)	Precip. Water equivalent (In.)	Snow, sleet (In.)	Avg station pressure (In.) Elev. 39 feet m.s.l.	Resultant direction	Resultant speed (m.p.h.)	Average speed (m.p.h.)	Fastest mile Speed (m.p.h.)	Fastest mile Direction	Sunshine Hours and tenths	Percent of possible	Sky cover Sunrise to sunset	Sky cover Midnight to midnight	Date
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	65	53	59	0	51	6	0	1	0	.22	0	29.80	22	5.2	8.5	17	NW	3.3	28	8	9	1
2	64	48	56	-3	47	9	0		0	.10	0	29.94	24	6.0	8.6	22	W	5.6	48	8	7	2
3	63	42	53	-6	45	12	0	1 8	0	0	0	30.12	30	2.8	4.3	6	W	8.9	77	4	3	3
4	67	45	56	-2	46	9	0	1 8	0	0	0	30.10	31	2.3	3.5	9	W	8.3	71	3	3	4
5	72	41	57	-1	45	8	0	2	0	0	0	30.07	28	2.3	2.5	6	W	9.6	83	1	1	5
6	74*	42	58	1	45	7	0	2 8	0	0	0	30.03	16	1.7	3.5	7	SE	9.5	83	4	4	6
7	63	48	56	-1	48	9	0	1	0	.08	0	29.78	12	8.3	8.5	22	E	0.7	6	10	10	7
8	60	51	56	-1	49	9	0		0	.24	0	29.78	19	7.8	10.6	17	SW	2.5	22	9	9	8
9	58	46	52	-5	48	13	0	1	0	.16	0	29.96	21	6.4	6.8	18	S	1.6	14	10	10	9
10	60	40	50	-7	44	15	0	2 8	0	0	0	30.19	30	1.7	2.7	11	NW	3.9	34	7	5	10
11	68	38	53	-3	43	12	0	2	0	0	0	30.23	32	1.6	2.5	12	NE	8.7	78	2	2	11
12	58	42	50	-6	23	15	0		0	0	0	30.19	08	12.8	14.4	34	E	11.1	100	0	0	12
13	58	43	51	-5	20	14	0		0	0	0	30.06	08	15.9	16.4	35	E	11.1	100	0	0	13
14	63	31*	47	-8	28	18	0		0	0	0	29.97	12	3.8	8.2	16	E	11.0	100	0	1	14
15	61	46	54	-1	30	11	0		0	.15	0	29.76	11	15.2	16.4	26	E	1.1	10	10	9	15
16	54	41	48	-6	45	17	0	1	0	.43	0	29.87	12	4.0	5.0	14	E	0.2	2	10	9	16
17	61	41	51	-3	43	14	0	1 8	0	0	0	30.05	26	2.1	3.0	6	W	8.0	74	3	4	17
18	58	34	46	-8	42	19	0	2 8	0	0	0	30.12	32	.6	2.0	5	SE	5.4	50	5	4	18
19	58	45	52	-1	45	13	0	1 8	0	0	0	30.23	16	1.9	3.3	7	SW	2.3	21	10	10	19
20	68	46	57	4	48	8	0	1 8	0	0	0	30.27	26	.9	1.7	8	W	7.4	69	8	7	20
21	71	46	59	6	50	6	0	2 8	0	0	0	30.07	12	.4	.4	3	E	5.7	53	7	5	21
22	61	45	53	0	50	12	0	2 8	0	.06	0	29.98	33	1.6	1.9	13	NW	2.9	27	10	10	22
23	58	47	53	1	46	12	0	8	0	.05	0	30.03	24	1.3	2.3	8	W	4.3	41	10	10	23
24	56	45	51	-1	45	14	0		0	.10	0	30.05	15	3.4	4.0	16	SW	0.3	2	10	9	24
25	63	40	52	1	41	13	0		0	0	0	30.13	10	6.5	8.9	24	E	7.9	75	7	8	25
26	62	49	56	5	37	9	0		0	.08	0	29.93	11	10.4	10.7	30	E	1.4	13	10	10	26
27	59	47	53	2	46	12	0	1	0	.04	0	29.94	17	10.0	12.4	24	S	1.7	17	9	10	27
28	61	52	57	7	50	8	0	1	0	.07	0	30.07	20	7.3	8.3	20	S	0.7	6	10	10	28
29	59	48	54	4	50	11	0	1	0	.02	0	30.18	10	2.0	2.0	7	E	0.0	0	10	10	29
30	62	48	56	6	51	9	0	2 8	0	.03	0	30.21	11	2.5	2.6	11	E	1.8	17	10	9	30
31	60	44	52	2	50	13	0	2 8	0	0	0	30.1?	[illegible]	[illegible]	[illegible]	9	W	9.3?	22	6	8	31
	Sum 1926	Sum 1379				Total 397	Total 0			Total 3.03	Total	For the month: 30.04	13	2.6	6.2	35	E	Total 150.2	% for month 44	Sum 211	Sum 203	
	Avg 62.1	Avg 44.6	Avg 53.3	Dep -0.9	Avg 44	Dep 12	Dep			Dep -0.59						Date 13		Possible 339.0		Avg 6.8	Avg 6.5	

Number of days				Season to date		Number of days	
Maximum Temp ≥ 90°	Maximum Temp ≤ 32°	Minimum Temp ≤ 32°	Minimum Temp ≤ 0°	Heating Total	Cooling Total	Precipitation ≥ .01 inch	15
0	0	1	0	401	207	Snow, sleet ≥ 1.0 inch	0
				Dep -21	Dep	Thunderstorms	0
						Heavy fog X	9

Greatest in 24 hours and dates: Precipitation	Dates	Snow, Sleet	Greatest depth on ground of snow, sleet or ice and date
.61	7-8	0	0

HOURLY PRECIPITATION (Water equivalent in inches)

Date	A.M. 1	2	3	4	5	6	7	8	9	10	11	12	P.M. 1	2	3	4	5	6	7	8	9	10	11	12	Date
1				T	T	.03	T	.01	.08	.06	.04	.01	.02	T	T						T			T	1
2	T	.01	T			T	.08	.01	T			T					T	T							2
7						T	T	T	T	.01		T	T	T	T	.03	.09	.10	.22	.08	.03	T	T		7
8				T		.01	T	.04		.06	.03	T	T	.02	T	T	T		T	T	.04	.08	T	.01	8
9	T	.03	.02		.06	T						T	T	T	.02	.03	.02	.01	T						9
15										T						T	T	T			T	.02	.03	.08	15
16	.03	.01	.08	.05	.05	.06	.02	.04	.01				.04	T	.02	T									16
22																			T	T	.03	.02	T	.01	22
23	T									T							T	T		.01	T	.03	T		23
24		T	.03	.01		.02	.02							T	T	.02	T								24
26										T		T	T	T		T	T	.02	T	.01	T	.01	.02	.02	26
27	.10	.10	.02	.06	.01				.02	.01		T	.02	.06	T	.01	T	.03	.04	.04	.04	.01	T	T	27
28	T	.01	.02				.01	T	T	T					T								T	T	28
29				.01	.01	T	T	T	T		T														29
30							.01	.01		.01															30

* Extreme temperature for the month. May be the last of more than one occurrence.
— Below zero temperature or negative departure from normal.
§ ≥ 70° at Alaskan stations.
\ Also on an earlier date, or dates.
X Heavy fog restricts visibility to ¼ mile or less.
T In the Hourly Precipitation table and in columns 9, 10, and 11 indicates an amount too small to measure.

The season for degree days begins with July for heating and with January for cooling.
Data in columns 6, 12, 13, 14, and 15 are based on 8 observations per day at 3-hour intervals.
Wind directions are those from which the wind blows. Resultant wind is the vector sum of wind directions and speeds divided by the number of observations. Figures for directions are tens of degrees from true North; i.e., 09 = East, 18 = South, 27 = West, 36 = North, and 00 = Calm. When directions are in tens of degrees in Col. 17, entries in Col. 16 are fastest observed 1-minute speeds. If the # appears in Col. 17, speeds are gusts.

Any errors detected will be corrected and changes in summary data will be annotated in the annual summary.

Subscription Price: Local Climatological Data $1.00 per year including annual Summary if published. Single copy: 10 cents for monthly Summary, 15 cents for annual Summary. Checks or money orders should be made payable and remittances and correspondence should be sent to the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

I certify that this is an official publication of the Environmental Science Services Administration, and is compiled from records on file at the National Weather Records Center, Asheville, North Carolina 28801.

William H. Haggard
Director, National Weather Records Center

SUMMARY BY HOURS

Hour (Local time)	Averages: Sky cover (tenths)	Station pressure (In.)	Dry bulb (°F)	Wet bulb (°F)	Rel. hum. %	Dew point (°F)	Wind speed (m.p.h.)	Resultant wind: Direction	Resultant wind: Speed (m.p.h.)
01	6	30.04	49	46	82	43	5.3	17	2.9
04	6	30.04	48	46	86	43	6.0	14	3.2
07	6	30.03	48	46	83	42	6.9	14	2.2
10	7	30.07	53	49	73	44	6.9	13	3.1
13	6	30.04	59	52	61	44	7.3	13	2.9
16	6	30.02	60	52	58	43	7.8	11	2.9
19	6	30.03	54	50	71	44	6.1	11	2.7
22	3	30.04	51	48	82	44	5.2	13	3.2

OBSERVATIONS AT 3-HOUR INTERVALS

NOTES

CEILING COLUMN—

UNL indicates an unlimited ceiling.
CIR indicates a cirriform cloud ceiling of unknown height.

WEATHER COLUMN—

- * Tornado
- T Thunderstorm
- Q Squall
- R Rain
- RW Rain showers
- ZR Freezing rain
- L Drizzle
- ZL Freezing drizzle
- S Snow
- SP Snow pellets
- IC Ice crystals
- SW Snow showers
- SG Snow grains
- I Sleet
- A Hail
- AP Small hail
- F Fog
- IF Ice fog
- GF Ground fog
- BD Blowing dust
- BN Blowing sand
- BS Blowing snow
- BY Blowing spray
- K Smoke
- H Haze
- D Dust

WIND COLUMNS—

Directions are those from which the wind blows, indicated in tens of degrees from true North; i. e., 09 for East, 18 for South, 27 for West. Entry of 00 in the direction column indicates calm.

Speed is expressed in knots; multiply by 1.15 to convert to miles per hour.

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PORTLAND

I. Identification of Odorant Sources

No.	Name	Location
1	Chipman Chemical	NW 61st near St. Helens Road
2	Complex of rendering plants	Along N. Newark St., north of Columbia Blvd.
3	Hercules Chemical	NW Yeon Ave., near NW 29th St.
4	Asphalt plants	Mostly along NW Front St. in the industrial area

II. Socio-Economic Data on Public Opinion Survey Test and Control Areas

Sex	Test Area (%)	Control Area (%)
Male	41.6	34.5
Female	58.4	65.5

Age	Test Area (%)	Control Area (%)
18-24	7.5	6.2
25-34	14.5	14.7
35-44	16.2	6.8
45-54	16.2	14.7
55-64	23.1	14.7
65+	20.2	40.7
Refused	2.4	2.4

Education	Test Area (%)	Control Area (%)
Under 8th Grade	14.5	11.9
Junior High	4.6	4.0
1-3 Years H.S.	10.4	9.6
H.S. Graduate	41.0	36.2
1-3 Years College	13.9	14.1
College Graduate	10.4	7.9
Post Graduate	0.6	1.1
Vocational	2.3	6.2
Refused	2.3	9.0

PORTLAND (Cont'd)

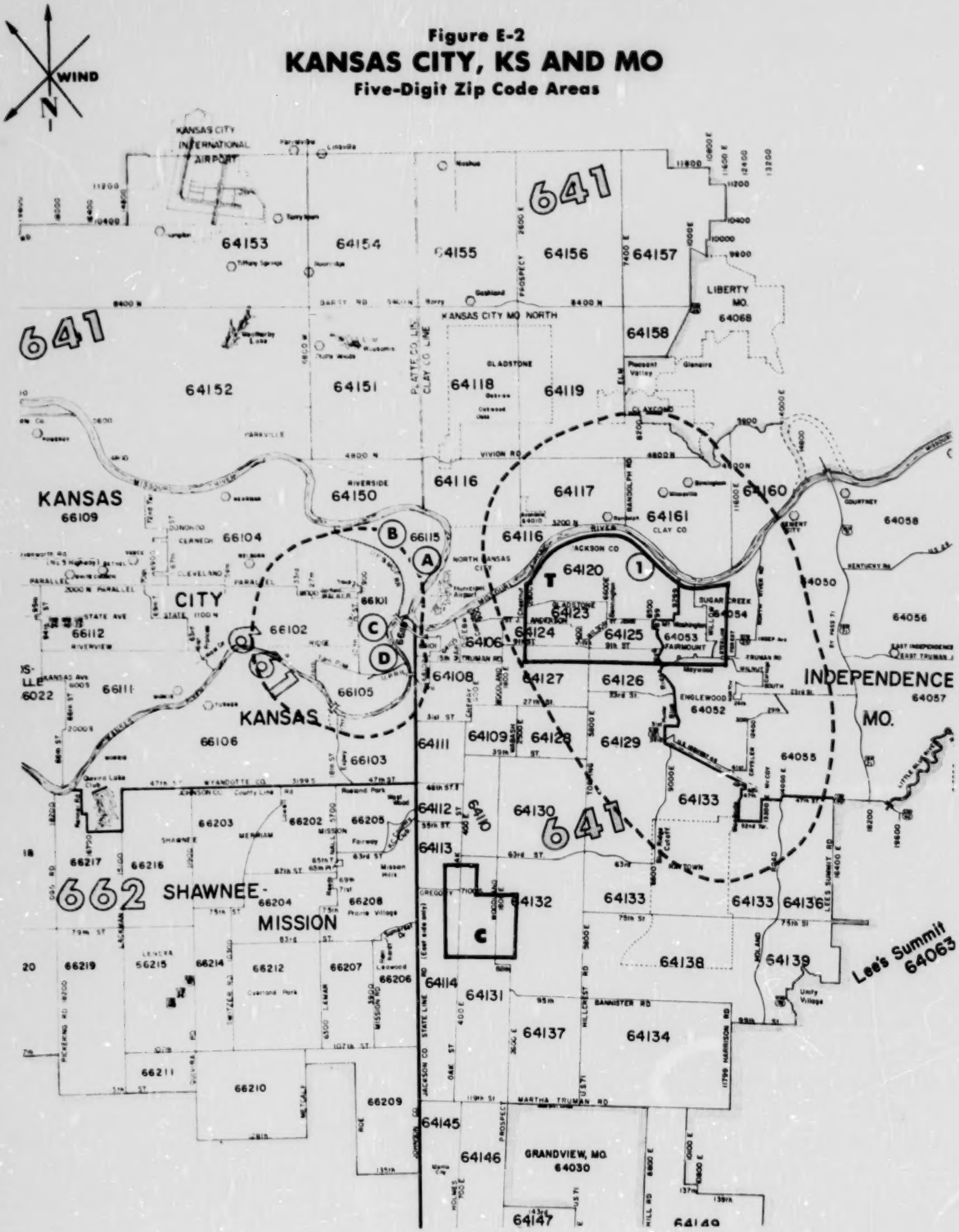
Family Size	Test Area (%)	Control Area (%)
1	13.9	19.8
2	41.6	46.3
3	17.3	12.4
4	10.4	9.6
5	6.9	4.0
6	3.5	2.8
7	1.7	0.6
8	1.7	0.6
9	1.7	0.6
10	-	-
More than 10	-	-
Refused	1.2	3.4

Annual Income	Test Area (%)	Control (%)
Under $5,000	24.3	35.0
$5,000 - $9,999	37.0	26.0
$10,000 - $14,999	23.1	12.4
$15,000 - $17,499	2.3	3.4
$17,500 - $19,999	0.6	2.3
$20,000 and over	1.2	0.6
Don't know/Refused	11.6	20.3

Figure E-2

KANSAS CITY, KS AND MO

Five-Digit Zip Code Areas



LOCAL CLIMATOLOGICAL DATA

U. S. DEPARTMENT OF COMMERCE – MAURICE H. STANS, Secretary

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

ENVIRONMENTAL DATA SERVICE

KANSAS CITY, MISSOURI
MUNICIPAL AIRPORT
SEPTEMBER 1969

Latitude 39° 07' N Longitude 94° 36' W Elevation (ground) 742 ft Standard time used CENTRAL

Date	Temperature (°F) Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days (Base 65°) Heating	Cooling	Weather types shown by code 1-9 on dates of occurrence 123 456 789 Fog, Heavy Fog or Thunderstorm; Snow, Sleet, Hail or Glaze; Duststorm, Smoke, Haze, Blowing Snow	Snow, Sleet, or Ice on ground at 0600 (In.)	Precipitation Water equivalent (In.)	Snow, sleet (In.)	Avg station pressure (In.) Elev. 790 feet msl	Wind Resultant direction	Resultant speed (m.p.h.)	Average speed (m.p.h.)	Fastest mile Speed (m.p.h.)	Fastest mile Direction	Sunshine Hours and tenths	Sunshine Percent of possible	Sky cover (Tenths) Sunrise to sunset	Sky cover (Tenths) Midnight to midnight	Date
1	83	69	76	1	67	0	11		0	0	0	29.37	03	0.4	7.1	11	N	2.1	16	10	10	1
2	81	66	74	-1	63	0	9		0	0	0	29.31	05	5.5	6.8	11	N	4.5	34	9	9	2
3	83	66	75	0	64	0	10	1	0	0	0	29.18	10	5.1	6.8	13	36	9.7	64	8	8	3
4	82	71	77	2	68	0	12	1 3	0	.23	0	29.09	14	8.1	7.9	14	3	4.5	34	7	7	4
5	92	67	80	6	68	0	15	1 3	0	.48	0	29.08	19	10.0	13.1	21	SE	8.8	76	4	4	5
6	94*	70	82	8	71	0	17		0	.02	0	29.19	18	7.1	11.7	29	NE	11.2	87	4	4	6
7	81	67	74	0	65	0	9	1 3	0	.76	0	29.28	05	3.2	10.6	26	NE	9.4	62	7	5	7
8	80	62	71	-2	59	0	6	1	0	0	0	29.34	01	3.5	6.0	15	N	12.0	94	3	2	8
9	74	54	64	-9	49	1	0		0	0	0	29.42	04	6.9	8.1	13	N	12.5	99	0	1	9
10	79	56	68	-5	53	0	3	1	0	0	0	29.44	21	2.7	9.2	10	E	9.8	77	2	3	10
11	84	66	75	2	58	0	10		0	T	0	29.39	25	4.8	7.5	13	W	10.9	85	3	3	11
12	86	65	76	4	59	0	11	1	0	0	0	29.32	17	9.4	7.5	13	S	11.1	88	1	2	12
13	83	67	75	3	57	0	10		0	0	0	29.20	19	10.9	11.1	24	S	7.9	60	9	9	13
14	85	70	78	6	60	0	13		0	T	0	29.13	18	14.3	14.4	21	S	6.7	53	10	9	14
15	77	66	72	0	64	0	7	1	0	1.02	0	29.11	14	5.4	9.8	18	SE	1.8	14	10	10	15
16	70	65	68	-4	63	0	3	1	0	.45	0	29.14	03	9.3	9.9	15	N	0.0	0	10	9	16
17	78	62	70	-1	57	0	5	1	0	0	0	29.34	05	7.2	8.1	14	NE	6.5	53	8	8	17
18	72	59	66	-5	50	0	1		0	0	0	29.46	08	8.9	9.4	16	NE	8.4	72	9	8	18
19	76	55	66	-5	52	0	1		0	0	0	29.44	08	8.5	8.6	12	NE	12.3	100	0	0	19
20	78	56	67	-3	53	0	2		0	0	0	29.37	10	8.6	9.2	16	E	12.3	100	0	0	20
21	82	63	73	3	60	0	8		0	0	0	29.27	15	9.3	10.3	17	SE	9.1	72	3	3	21
22	78	65	72	2	65	0	7	1 3	0	.07	0	29.16	18	10.7	11.4	20	NW	0.7	5	10	8	22
23	75	57	66	-4	54	0	1	1 3	0	.44	0	29.19	35	11.4	12.2	18	NW	10.1	84	4	4	23
24	76	49*	63	-6	49	2	0		0	0	0	29.17	10	4.3	8.6	13	SE	12.1	100	0	0	24
25	81	58	70	1	55	0	5	3	0	.25	0	29.12	06	2.1	5.0	25	NE	8.2	68	8	5	25
26	85	59	72	3	60	0	7	1 3	0	T	0	29.14	17	6.3	9.4	19	S	10.8	90	3	3	26
27	79	62	71	3	60	0	6	1	0	0	0	29.26	05	4.1	8.8	16	NE	10.4	87	4	3	27
28	74	57	66	-2	56	0	1	3	0	.05	0	29.36	12	8.2	10.1	17	SE	6.4	57	8	6	28
29	89	64	77	9	60	0	12	3	0	T	0	29.18	20	8.7	10.9	20	SE	8.2	69	6	5	29
30	90	67	79	12	61	0	14		0	0	0	29.06	17	7.3	10.4	22	S	11.8	100	0	0	30
	Sum 2427	Sum 1880				Total 3	Total 216	Number of days Precipitation ≥ .01 inch 10		Total 3.07	Total 0	For the month: 29.29	12	9.1	9.1	29	NE	Total 230.2	% for month	Sum 164	Sum 190	
	Avg. 80.9	Avg. 62.7	Avg. 71.8	Dep. 0.5	Avg. 56	Dep. -36	Dep.	Snow, sleet ≥ 1.0 inch 0		Dep. 0.42						Date 06		Possible 373.3	64	Avg. 5.5	Avg. 5.0	
	Number of days Maximum Temp. ≥32°	≤90°	Minimum Temp. ≤32°	≤0°		Season to date Total 3	Total 1482	Thunderstorms 9		Greatest in 24 hours and dates Precipitation 1.02	19	Snow, Sleet 0				Greatest depth on ground of snow, sleet or ice and date 0					
	0	3	0	0		Dep. -36	Dep.	Heavy fog X 0														

HOURLY PRECIPITATION (Water equivalent in inches)

Date	A.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	P.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	Date
1																									1
2																									2
3														.19	T	T									3
4		T																							4
5				.21	.02	.01	.24																.02	T	5
6																									6
7		.73	.03	T																					7
8																									8
9																									9
10																									10
11	T				T																				11
12																									12
13																									13
14																	T	T	T						14
15			T	.18	.22	.40	.05	.15	.02	T															15
16							T	.02	.07	.10	.19	.11	T	T	T										16
17																									17
18																									18
19																									19
20																									20
21																									21
22											T	T	T										.07		22
23	.24	.18	.02	T	T																				23
24										T						T		.23	.02						24
25																					T	T			25
26																									26
27											T	T	T	.04	T			.01	T						27
28																		T	T						28
29							T	T																	29
30																									30

* Extreme temperatures for the month. May be the last of more than one occurrence.
– Below zero temperature or negative departure from normal.
‡ ≥ 70° at Alaskan stations.
+ Also on an earlier date, or dates.
X Heavy fog restricts visibility to ¼ mile or less.
T In the Hourly Precipitation table and in columns 9, 10, and 11 indicates an amount too small to measure.

The season for degree days begins with July for heating and with January for cooling.
Data in columns 6, 12, 13, 14, and 15 are based on 8 observations per day at 3-hour intervals.
Wind directions are those from which the wind blows. Resultant wind is the vector sum of wind directions and speeds divided by the number of observations. Figures for directions are tens of degrees from true North; i.e., 09 = East, 18 = South, 27 = West, 36 = North, and 00 = Calm. When directions are in tens of degrees in Col. 17, entries in Col. 16 are fastest observed 1-minute speeds. If the / appears in Col. 17, speeds are gusts.

Any errors detected will be corrected and changes in summary data will be annotated in the annual summary.

Subscription Price: Local Climatological Data $1.00 per year including annual Summary if published. Single copy: 10 cents for monthly Summary; 15 cents for annual Summary. Checks or money orders should be made payable and remittances and correspondence should be sent to the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

I certify that this is an official publication of the Environmental Science Services Administration, and is compiled from records on file at the National Weather Records Center, Asheville, North Carolina 28801.

William H. Haggard

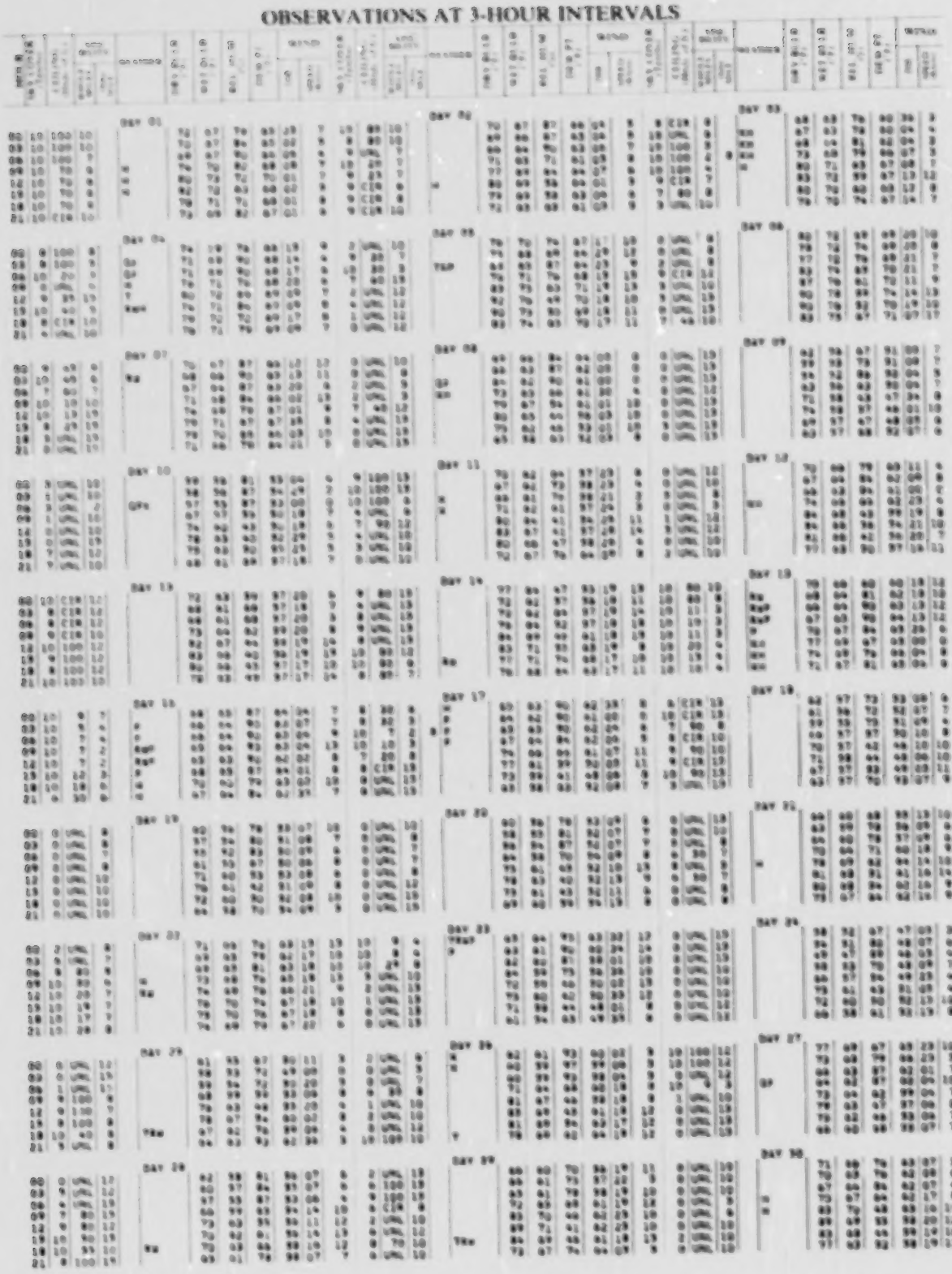
Director, National Weather Records Center

SUMMARY BY HOURS

Hour (Local time)	AVERAGES Sky cover (In tenths)	Station pressure (In.)	Dry bulb (°F)	Wet bulb (°F)	Rel. hum. %	Dew point (°F)	Wind speed (m.p.h.)	Resultant wind Direction	Resultant wind Speed (m.p.h.)
00	5	29.26	68	63	79	59	8.5	13	3.0
03	5	29.25	66	62	80	59	7.2	11	2.3
06	6	29.27	64	61	84	59	6.7	11	2.2
09	6	29.29	70	63	71	60	9.9	13	4.1
12	5	29.27	77	66	57	60	10.5	13	3.1
15	5	29.23	80	67	51	59	10.8	13	2.3
18	5	29.21	77	66	56	59	9.9	12	3.8
21	4	29.23	74	64	69	60	9.3	11	4.8

USCOMM—ESSA—ASHEVILLE 450

OBSERVATIONS AT 3-HOUR INTERVALS



NOTES

CEILING COLUMN

UNL indicates an unlimited ceiling.
CIG indicates a ceiling or cloud ceiling of unknown height.

WEATHER COLUMN

+	Tornado
1	Thunderstorm
Q	Squall
R	Rain
RW	Rain showers
ZR	Freezing rain
L	Drizzle
ZL	Freezing drizzle
S	Snow
SP	Snow pellets
IC	Ice crystals
SW	Snow showers
SG	Snow grains
V	Volcanic ash
A	Hail
AP	Small hail
F	Fog
IF	Ice fog
GF	Ground fog
BD	Blowing dust
BN	Blowing sand
BS	Blowing snow
BY	Blowing spray
K	Smoke
H	Haze
D	Dust

WIND COLUMNS

Directions are those from which the wind blows, indicated in tens of degrees from true North; i. e., 09 for East, 18 for South, 27 for West. Entry of 00 in the direction column indicates calm.

Speed is expressed in knots; multiply by 1.15 to convert to miles per hour.

ADDITIONAL DATA

Other observational data contained in records on file can be furnished at cost via microfilm or microfiche copies of the original records. Inquiries as to availability and costs should be addressed to: Director, National Weather Records Center, Federal Building, Asheville, N. C. 28801

STATION: KANSAS CITY MO YEAR & MONTH: 69 09

LOCAL CLIMATOLOGICAL DATA

U.S. DEPARTMENT OF COMMERCE
MAURICE H. STANS, Secretary
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

KANSAS CITY, MISSOURI
MUNICIPAL AIRPORT
OCTOBER 1969

Latitude 39° 07' N Longitude 94° 36' W Elevation (ground) 742 ft. Standard time used: CENTRAL

Date	Temperature (°F) Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days (Base 65°) Heating	Cooling	Weather types shown by code 1-8 on dates of occurrence	Snow, Sleet, or Ice on ground at 06AM (In.)	Precipitation Water equivalent (In.)	Snow, sleet (In.)	Avg. station pressure (In.) Elev. 750 feet m.s.l.	Wind Resultant direction	Resultant speed (m.p.h.)	Average speed (m.p.h.)	Fastest mile Speed (m.p.h.)	Direction	Sunshine Hours and tenths	Percent of possible	Sky cover (Tenths) Sunrise to sunset	Midnight to midnight	Date
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1–31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1–31

For the month: Precipitation total 6.33; Greatest in 24 hours and dates: Precipitation 2.29, 11-12; Snow, Sleet 0; Greatest depth on ground of snow, sleet or ice and date: 0.

Number of days: Precipitation ≥ .01 inch 14; Snow, sleet ≥ 1.0 inch 0; Thunderstorms [illegible]; Heavy fog [illegible].

HOURLY PRECIPITATION (Water equivalent in inches)

Date	A.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	P.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	Date
1–31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1–31

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William H. Haggard

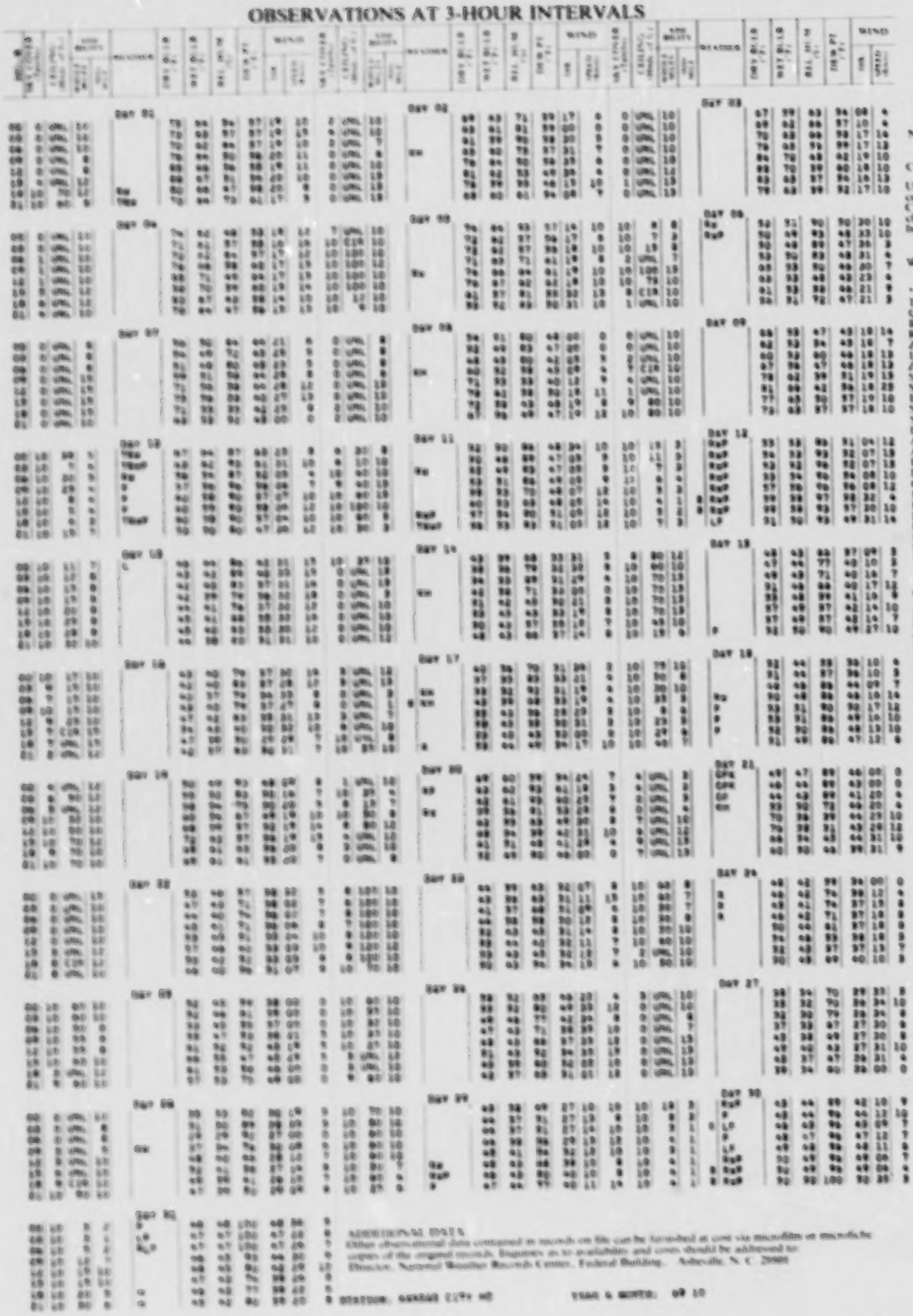
Director, National Weather Records Center

SUMMARY BY HOURS

Hour	AVERAGES [illegible]							Resultant wind Direction	Speed
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

USCOMM—ESSA—ASHEVILLE

OBSERVATIONS AT 3-HOUR INTERVALS



NOTES

CEILING COLUMN—

UNL indicates an unlimited ceiling.
CIR indicates a cirriform cloud ceiling of unknown height.

WEATHER COLUMN—

*	Tornado
T	Thunderstorm
Q	Squall
R	Rain
RW	Rain showers
ZR	Freezing rain
L	Drizzle
ZL	Freezing drizzle
S	Snow
SP	Snow pellets
IC	Ice crystals
SW	Snow showers
SG	Snow grains
E	Sleet
A	Hail
AP	Small hail
F	Fog
IF	Ice fog
GF	Ground fog
BD	Blowing dust
BN	Blowing sand
BS	Blowing snow
BY	Blowing spray
K	Smoke
H	Haze
D	Dust

WIND COLUMNS

Directions are those from which the wind blows, indicated in tens of degrees from true North, i. e., 09 for East, 18 for South, 27 for West. Entry of 00 in the direction column indicates calm.

Speed is expressed in knots; multiply by 1.15 to convert to miles per hour.

ADDITIONAL DATA

Other observational data contained in records on file can be furnished at cost via microfilm or microfiche copies of the original records. Inquiries as to availability and costs should be addressed to: Director, National Weather Records Center, Federal Building, Asheville, N. C. 28801

STATION: [illegible] YEAR & MONTH: 69 10

KANSAS CITY (MO. & KS.)

I. Identification of Odorant Sources

No.	Name	Location
1	Chemagro	South Bank of Missouri, one-half mile SE of N&W R.R. Bridge
A	Philips Oil Co.	In tract SE of Fairfax Municipal Airport
B	Fiberglass plants	Plants located between 7th St. Trafficway and Fairfax Municipal Airport
C	Meat packing plants	Along Kansas River between Junction W Missouri River and 23rd St. Bridge
D	Rendering plants	Same area as above

II. Socio-Economic Data on Public Opinion Survey Test and Control Areas

Sex	Test Area (%)	Control Area (%)
Male	50.9	49.4
Female	49.1	50.6

Age	Test Area (%)	Control Area (%)
18-24	2.9	2.8
25-34	10.9	11.4
35-44	17.1	17.6
45-54	13.1	27.8
55-64	26.3	19.9
65+	29.7	19.3
Refused	-	1.1

Education	Test Area (%)	Control Area (%)
Under 8th Grade	25.1	26.1
Junior High	3.4	6.3
1-3 Years H.S.	16.6	15.3
H.S. Graduate	36.6	34.1
1-3 Years College	10.3	8.0
College Graduate	1.7	1.7
Post Graduate	1.1	0.6
Vocational	2.9	6.8
Refused	2.9	2.2

Family Size	Test Area (%)	Control Area (%)
1	12.6	8.5
2	43.4	35.8
3	16.0	19.9
4	12.6	18.2
5	7.4	6.8
6	5.1	4.5
7	0.6	1.7
8	1.1	0.6
9	0.6	-
10	-	-
More than 10	-	-
Refused	0.6	4.0

Annual Income	Test Area (%)	Control Area (%)
Under $5,000	33.7	25.6
$5,000 - $9,999	36.0	43.8
$10,000 - $14,999	18.3	21.0
$15,000 - $17,499	4.0	-
$17,500 - $19,999	-	0.6
$20,000 and over	1.1	0
Don't know/Refused	6.9	9.0

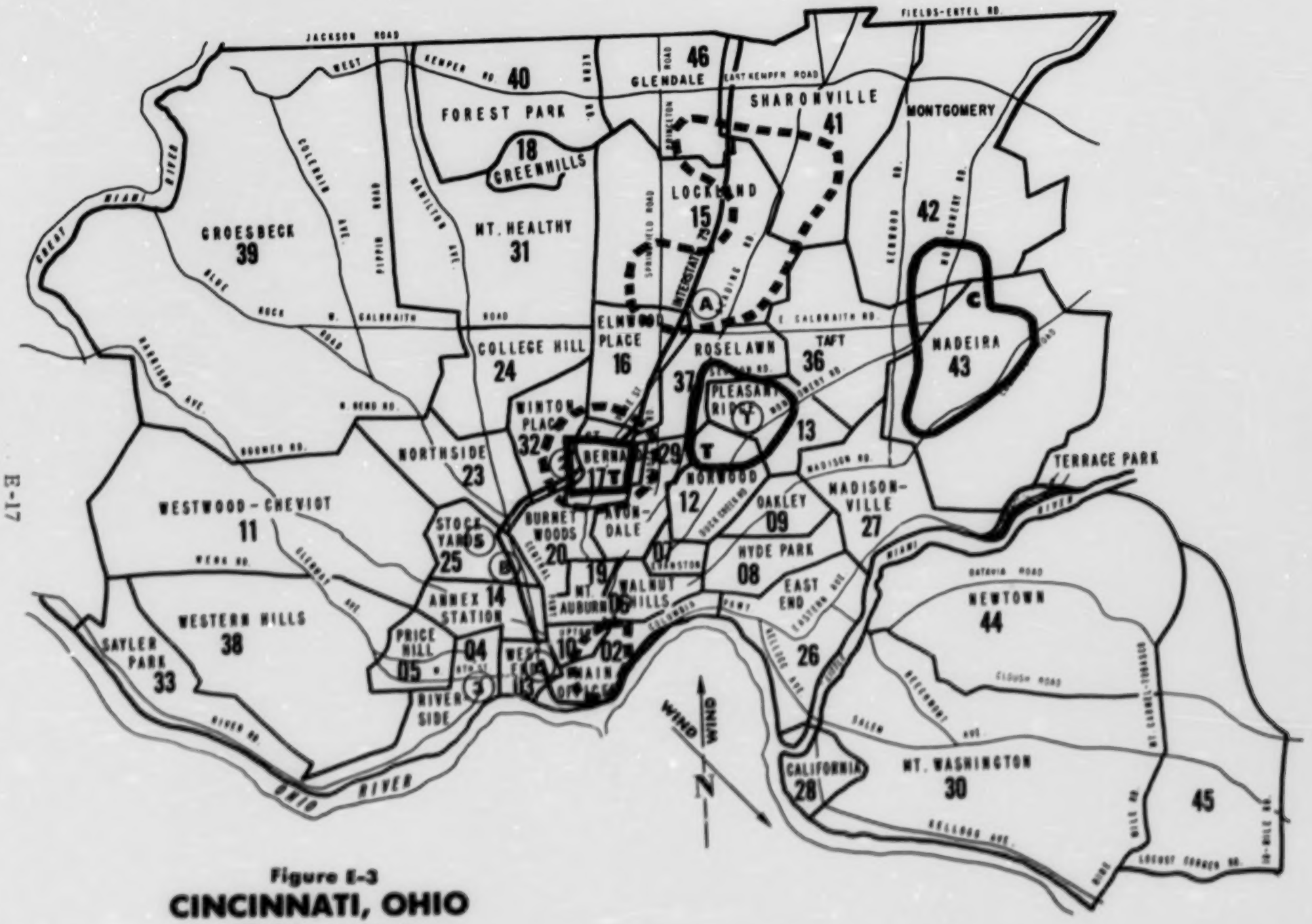


Figure E-3

CINCINNATI, OHIO

Five-Digit Zip Code Areas

(452 + Two Digits Shown = Zip Code)

LOCAL CLIMATOLOGICAL DATA

U S DEPARTMENT OF COMMERCE - MAURICE H. STANS, Secretary
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

CINCINNATI, OHIO
ABBE OBSERVATORY
SEPTEMBER 1969

Latitude 39° 09' N Longitude 84° 31' W Elevation (ground) 761 ft. Standard time used: EASTERN

Date	Maximum	Minimum	Average	Departure from normal	Average dew point	Heating (Base 65°)	Cooling (Base 65°)	Weather types	Snow, sleet, or ice on ground at 07AM (In.)	Water equivalent (In.)	Snow, sleet (In.)	Avg. station pressure (In.)	Resultant direction	Resultant speed m.p.h.	Average speed m.p.h.	Fastest mile speed m.p.h.	Fastest mile direction	Sunshine hours and tenths	Sunshine percent of possible	Sky cover sunrise to sunset	Sky cover midnight to midnight	Date
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	DATA ARE NOT ENTERED IN THIS COLUMN BECAUSE RECORDS OF WEATHER TYPES MAY BE INCOMPLETE FOR PART OF THE DAY	0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			1
2	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			2
3	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			3
4	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			4
5	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			5
6	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			6
7	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			7
8	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			8
9	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			9
10	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			10
11	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			11
12	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			12
13	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			13
14	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			14
15	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			15
16	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			16
17	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			17
18	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			18
19	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			19
20	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			20
21	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			21
22	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			22
23	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			23
24	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			24
25	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			25
26	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			26
27	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			27
28	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			28
29	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			29
30	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		0	[illegible]	0					[illegible]	[illegible]	[illegible]	[illegible]			30

Sum [illegible] Avg. [illegible]	Sum [illegible] Avg. [illegible]	Avg. [illegible]	Dep. [illegible]	Avg.	Total [illegible] Dep.	Total [illegible] Dep.	Number of days: Precipitation ≥ .01 inch 11; Snow, sleet ≥ 1.0 inch 0; Thunderstorms; Heavy fog X	Total [illegible] Dep. [illegible]	Total 0	For the month	Fastest mile [illegible] Date [illegible]	Sunshine Total [illegible]; % [illegible]; Possible [illegible]
Number of days: Maximum Temp. ≥ 90° [illegible], ≤ 32° [illegible]; Minimum Temp. ≤ 32° [illegible], ≤ 0° [illegible]					Season to date Total [illegible] Dep.	Season to date Total [illegible] Dep.		Greatest in 24 hours and dates: Precipitation [illegible] [illegible]; Snow, Sleet 0			Greatest depth on ground of snow, sleet or ice and date: 0	

HOURLY PRECIPITATION (Water equivalent in inches)

Date	A.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	P.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	Date
1																	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	T	T	1
2					[illegible]	[illegible]	T									T			T	[illegible]					2
3										[illegible]	[illegible]	[illegible]													3
4																[illegible]	T	[illegible]	T						4
5											[illegible]	[illegible]	[illegible]	T						[illegible]					5
6			[illegible]	[illegible]																					6
7								[illegible]	[illegible]	[illegible]				[illegible]	T										7
16							T	[illegible]	[illegible]	T	[illegible]	[illegible]	[illegible]	T	[illegible]	T	T								16
19							T	T																	19
22							T	[illegible]	T																22
23		T	[illegible]	[illegible]	[illegible]	T																			23
26															[illegible]	T									26

- * Extreme temperatures for the month. May be the last of more than one occurrence.
- – Below zero temperature or negative departure from normal.
- ≥ .70" at Alaskan stations.
- Also on an earlier date, or dates.
- X Heavy fog reduces visibility to ¼ mile or less.
- T In the Hourly Precipitation table and in columns 9, 10, and 11 indicates an amount too small to measure.

The season for degree days begins with July for heating and with January for cooling.
Data in columns 6, 12, 13, 14, and 15 are based on 8 observations per day at 3-hour intervals.
Wind directions are those from which the wind blows. Resultant wind is the vector sum of wind directions and speeds divided by the number of observations. Figures for directions are tens of degrees from true North; i.e., 09 = East, 18 = South, 27 = West, 36 = North, and 00 = Calm. When directions are in tens of degrees in Col. 17, entries in Col. 16 are fastest observed 1-minute speeds. If the / appears in Col. 17, speeds are gusts.

Any errors detected will be corrected and changes in summary data will be annotated in the annual summary.

Subscription Price: Local Climatological Data $1.00 per year including annual Summary if published. Single copy: 10 cents for monthly Summary, 15 cents for annual Summary. Checks or money orders should be made payable and remittances and correspondence should be sent to the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

I certify that this is an official publication of the Environmental Science Services Administration, and is compiled from records on file at the National Weather Records Center, Asheville, North Carolina 28801.

William H. Haggard

Director, National Weather Records Center

SUMMARY BY HOURS

Hour	AVERAGES								Resultant wind	
	Sky cover (tenths)	Station pressure (In.)	Dry bulb °F	Wet bulb °F	Dew pt. °F	Relative humidity %	Wind speed m.p.h.		Direction	Speed m.p.h.

USCOMM—ESSA—ASHEVILLE [illegible]

LOCAL CLIMATOLOGICAL DATA

U.S. DEPARTMENT OF COMMERCE
MAURICE H. STANS, Secretary
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

GREATER CINCINNATI AIRPORT
BOONE COUNTY, KENTUCKY
OCTOBER 1969

Latitude [illegible] N Longitude [illegible] W Elevation (ground) [illegible] ft. Standard time used: EASTERN

Date	Temperature (°F) Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days (Base 65°) Heating	Cooling	Weather types on dates of occurrence	Snow, sleet or ice on ground at 07AM (In.)	Precipitation Water equivalent (In.)	Snow, sleet (In.)	Avg. station pressure (In.) Elev. 879 feet m.s.l.	Wind Resultant direction	Resultant speed (m.p.h.)	Average speed (m.p.h.)	Fastest mile Speed (m.p.h.)	Direction	Sunshine Hours and tenths	Percent of possible	Sky cover (Tenths) Sunrise to sunset	Midnight to midnight	Date
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	18
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19
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22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	22
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25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	25
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	26
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	27
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	28
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	29
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	30
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31

[illegible]

HOURLY PRECIPITATION (Water equivalent in inches)

A.M. Hour ending at / P.M. Hour ending at

[illegible]

SUMMARY BY HOURS

AVERAGES

[illegible]

Any errors detected will be corrected and changes in summary data will be annotated in the annual summary.

[illegible]

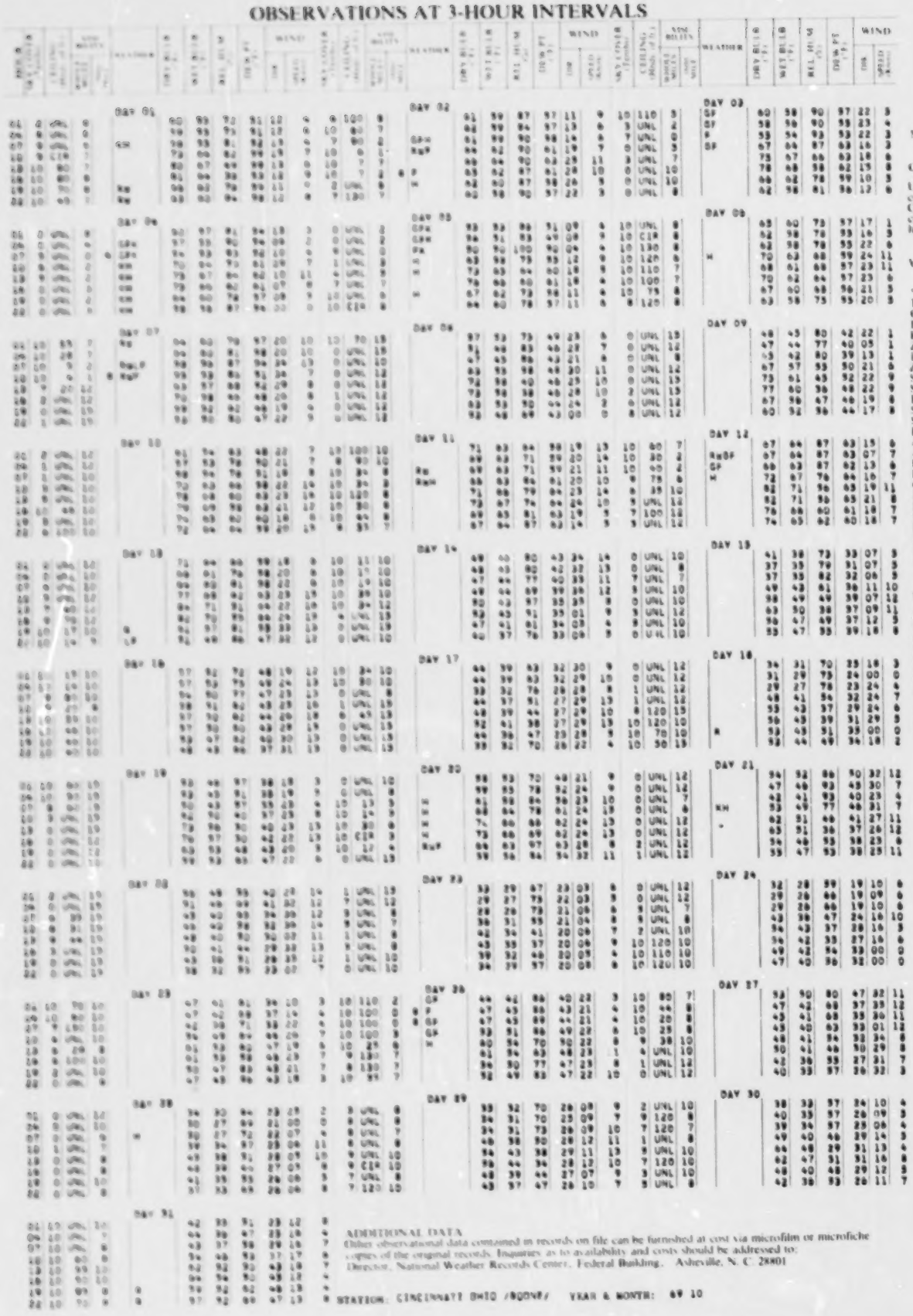
I certify that this is an official publication of the Environmental Science Services Administration, and is compiled from records on file at the National Weather Records Center, Asheville, North Carolina [illegible].

[signature]

Director, National Weather Records Center

USCOMM—ESSA—ASHEVILLE [illegible]

OBSERVATIONS AT 3-HOUR INTERVALS



NOTES

CEILING COLUMN

UNL indicates an unlimited ceiling.
CIR indicates a cirriform cloud ceiling of unknown height.

WEATHER COLUMN

*	Tornado
T	Thunderstorm
Q	Squall
R	Rain
RW	Rain showers
ZR	Freezing rain
L	Drizzle
ZL	Freezing drizzle
S	Snow
SP	Snow pellets
IC	Ice crystals
SW	Snow showers
SG	Snow grains
IE	Sleet
A	Hail
AP	Small hail
F	Fog
H	Ice fog
GF	Ground fog
BD	Blowing dust
BN	Blowing sand
BS	Blowing snow
BY	Blowing spray
K	Smoke
H	Haze
D	Dust

WIND COLUMNS

Directions are those from which the wind blows, indicated in tens of degrees from true North; i. e., 09 for East, 18 for South, 27 for West. Entry of 00 in the direction column indicates calm.

Speed is expressed in knots; multiply by 1.15 to convert to miles per hour.

ADDITIONAL DATA

Other observational data contained in records on file can be furnished at cost via microfilm or microfiche copies of the original records. Inquiries as to availability and costs should be addressed to: Director, National Weather Records Center, Federal Building, Asheville, N. C. 28801

STATION: CINCINNATI OHIO /BOONE/ YEAR & MONTH: 69 10

CINCINNATI

I. Identification of Odorant Sources

No.	Name	Location
1	Hilton Davis Chemical	Near Swifton Village on Langdon Farm Rd.
2	Formica	At Spring Grove Ave. and Winton Rd.
3	Kroger Coffee	At State Ave. and Lockwood St.
5	Kahn Packing	On Spring Grove Ave. near Cincinnati Union Stockyard
6	Emmert Grant	At Dunlap and Branch St.
A	Philip Carey	By Interstate Highway 75 close to Arlington Heights
B	Rendering plants	At Spring Grove Ave. and Hopple St.

II. Socio-Economic Data on Public Opinion Survey Test and Control Areas

Sex	Test Area (%)	Control Area (%)
Male	50.9	46.3
Female	49.1	53.7

Age	Test Area (%)	Control Area (%)
18-24	8.0	4.0
24-34	15.4	13.7
35-44	16.0	29.1
45-54	21.1	28.0
55-64	21.7	18.3
65+	17.7	6.9
Refused	-	-

Education	Test Area (%)	Control Area (%)
Under 8th Grade	12.6	4.6
Junior High	4.6	2.3
1-3 Years H.S.	9.7	5.1
H.S. Graduate	33.7	35.4
1-3 Years College	16.0	19.4
College Graduate	10.3	26.9
Post Graduate	5.7	3.4
Vocational	5.1	2.3
Refused	2.3	1.1

CINCINNATI (Cont'd)

Family Size	Test Area (%)	Control Area (%)
1	10.9	4.0
2	33.1	28.0
3	14.9	20.0
4	18.9	20.0
5	8.6	15.4
6	7.4	6.3
7	2.3	1.7
8	1.1	1.1
9	0.6	0.6
10	0.6	-
More than 10	-	-
Refused	2.3	2.9

Annual Income	Test Area (%)	Control Area (%)
Under $5,000	19.4	7.4
$5,000 - $9,999	33.1	19.4
$10,000 - $14,999	24.0	30.3
$15,000 - $17,499	1.7	9.7
$17,500 - $19,999	2.3	2.9
$20,000 and over	7.4	16.0
Don't know/Refused	12.3	14.3

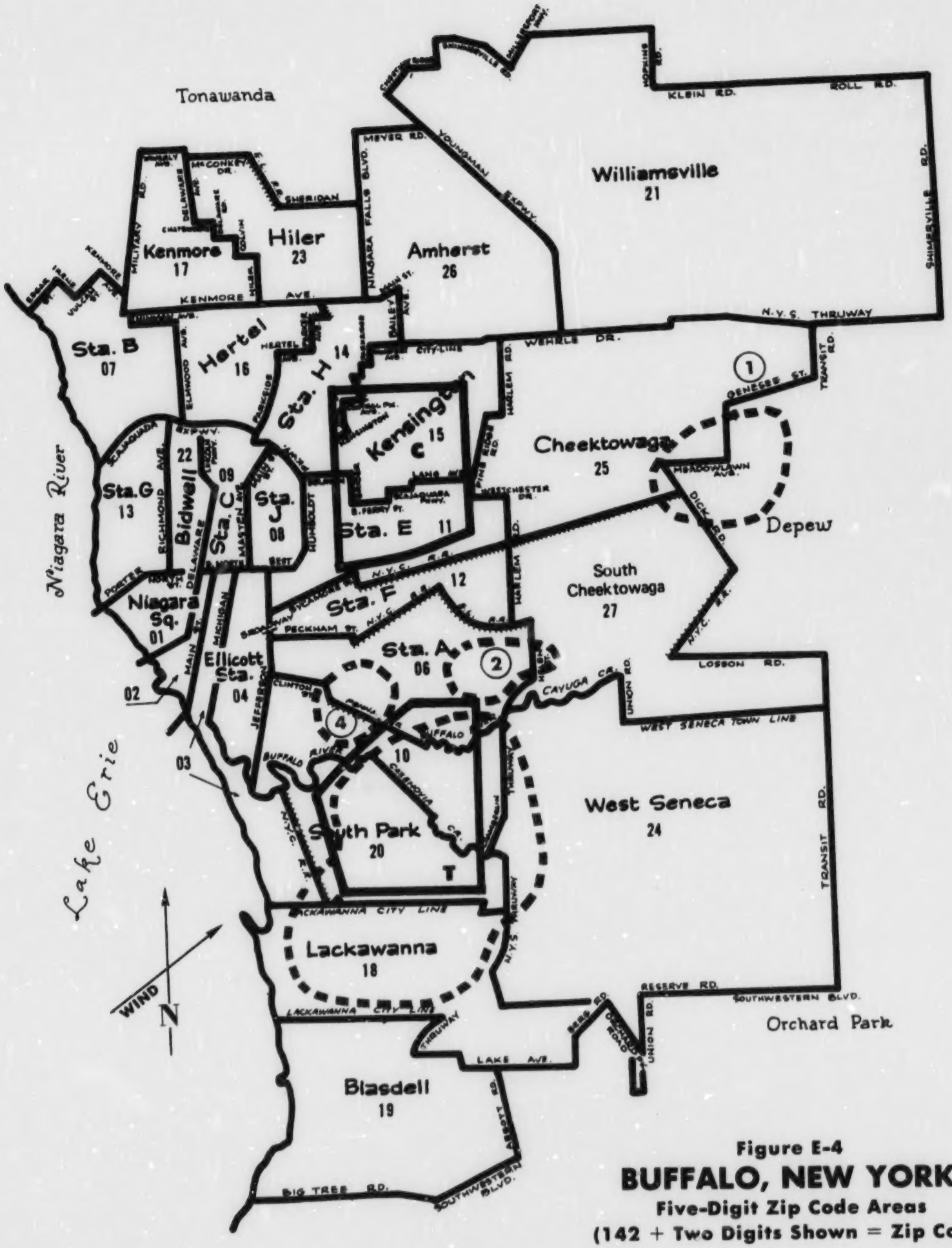


Figure E-4

BUFFALO, NEW YORK

Five-Digit Zip Code Areas

(142 + Two Digits Shown = Zip Code)

LOCAL CLIMATOLOGICAL DATA

U.S. DEPARTMENT OF COMMERCE
MAURICE H. STANS, Secretary
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

BUFFALO, NEW YORK
GREATER BUFFALO INTL AIRPORT
OCTOBER 1969

Latitude 42° 56' N Longitude 78° 44' W Elevation (ground) 709 ft Standard time used: EASTERN

Date	Temperature (°F) Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days (Base 65°) Heating	Cooling	Weather types shown by code 1-9 on dates of occurrence (Fog, Heavy Fog, Thunderstorm; Sleet, Hail, Glaze; Duststorm, Sandstorm, Haze, Smoke, Blowing Snow)	Snow, Sleet, or Ice on ground at 0 7AM (In.)	Precipitation Water equivalent (In.)	Snow, sleet (In.)	Avg station pressure (In.) Elev 706 feet m.s.l.	Wind Resultant direction	Resultant speed (m.p.h.)	Average speed (m.p.h.)	Fastest mile Speed (m.p.h.)	Fastest mile Direction	Sunshine Hours and tenths	Sunshine Percent of possible	Sky cover (Tenths) Sunrise to sunset	Sky cover (Tenths) Midnight to midnight	Date
	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	72	46	59	3	50	6	0	1 8	0	0	0	29.29	17	9.5	7.2	11	SW	10.3	87	7	7	1
2	70	39	55	9	59	0	0	1 8	0	.31	0	29.08	19	8.5	8.9	18	S	2.1	18	9	10	2
3	66	51	59	3	60	6	0	2 8	0	1.00	0	29.20	33	5.2	7.1	15	N	1.0	9	9	8	3
4	55	43	50	-5	43	15	0		0	0	0	29.49	07	9.1	9.8	16	E	4.4	38	8	8	4
5	70	40	55	0	46	10	0		0	0	0	29.51	09	5.7	7.5	12	E	11.4	99	0	1	5
6	69	48	59	5	50	6	0	8	0	0	0	29.36	20	5.5	6.3	11	SE	9.6	69	10	7	6
7	67	54	61	7	54	4	0	1 8	0	.19	0	29.21	21	9.5	10.1	20	SW	0.0	0	10	8	7
8	66	46	56	2	46	9	0	1	0	.01	0	29.23	26	14.7	17.3	29	SW	7.4	64	4	3	8
9	65	41	53	-1	41	12	0		0	0	0	29.35	20	8.2	9.6	17	SW	11.4	100	1	1	9
10	76	49	63	10	46	2	0		0	0	0	29.23	20	11.1	12.7	24	S	11.3	100	1	2	10
11	80	58	69	16	55	0	4	1 8	0	.03	0	29.23	21	10.5	11.9	20	S	9.8	81	9	8	11
12	66	53	60	7	52	5	0	1	0	0	0	29.43	04	6.1	7.9	13	NW	0.3	2	10	9	12
13	82*	52	67	15	57	0	2	1 8	0	.04	0	29.14	19	6.9	12.9	28	SW	6.8	61	10	10	13
14	64	43	54	2	41	11	0	1	0	.06	0	29.22	29	12.5	13.5	21	W	1.1	10	10	9	14
15	56	36	46	-6	35	19	0	1 8	0	0	0	29.38	35	1.6	4.5	9	E	10.6	95	1	2	15
16	62	38	50	-1	44	15	0	1 8	0	.09	0	29.06	24	8.5	14.2	29	SW	0.5	5	10	8	16
17	53	44	49	-2	36	16	0		0	T	0	29.12	28	16.0	16.3	24	W	2.0	18	10	9	17
18	57	41	49	-1	35	16	0		0	0	0	29.34	27	21.1	21.7	38	SW	9.3	85	3	3	18
19	55	49	52	2	43	13	0	1	0	.19	0	29.34	25	12.8	14.8	23	SW	0.0	0	10	8	19
20	64	53	59	10	52	6	0	1 8	0	.18	0	28.99	25	16.2	18.3	31	W	0.0	0	10	10	20
21	53	34	44	-5	41	21	0	1	0	.32	T	28.98	29	13.0	13.7	26	W	1.3	12	10	10	21
22	35	27	31	-18	28	34	0	1	0	.20	.9	29.09	36	9.3	14.7	22	NW	3.2	30	9	8	22
23	35	24*	30	-18	21	35	0		T	T	.1	29.03	32	9.0	9.8	17	NW	7.1	86	7	5	23
24	47	28	38	-10	27	27	0		0	0	0	29.68	23	10.9	12.5	26	SW	3.8	35	8	6	24
25	57	41	49	1	35	16	0		0	0	0	29.49	24	11.4	12.2	24	SW	6.8	64	7	7	25
26	55	45	50	3	37	15	0	8	0	0	0	29.32	21	12.1	12.5	29	SW	0.4	4	10	10	26
27	53	38	46	-1	35	19	0	1 8	0	.05	0	29.32	29	12.3	12.8	29	NW	0.0	0	10	10	27
28	44	31	38	-8	31	27	0	1	0	.16	0	29.32	29	12.3	12.8	29	NW	0.0	0	10	10	28
29	46	25	36	-10	27	29	0		0	T	0	29.60	36	4.3	5.9	13	N	5.1	49	6	5	29
30	57	27	42	-4	30	23	0		0	0	0	29.80	11	3.2	4.5	8	NE	7.3	70	7	5	30
31	60	37	49	4	34	16	0		0	0	0	29.68	09	5.9	6.8	13	N	10.4	100	3	2	31
										0	0	29.46	18	8.3	9.2	15	S	7.6	73	9	7	
	Sum 1857	Sum 1303				Total 433	Total 6	Number of days		Total 2.77	Total 1.0	For the month: 29.33	25	5.1	11.2	38	SW	Total 154.3	% for month	Sum Avg.	Sum Avg.	
	Avg 59.9	Avg 42.0	Avg 51.0	Dep. 0.2	Avg 42	Dep. -7	Dep.	Precipitation ≥ .01 inch 14		Dep. -0.23						Date 18		Possible 342.2	45	7.4	6.7	
						Season to date		Snow, sleet ≥ 1.0 inch 0														
	Number of days					Total 609	Total 568	Thunderstorms 0		Greatest in 24 hours and dates								Greatest depth on ground of snow, sleet or ice and date				
	Maximum Temp.		Minimum Temp.			Dep.	Dep.	Heavy fog X 1		Precipitation		Snow, Sleet						T		23+		
	≥ 32°	≤ 90° ‡	≤ 32°	≤ 0°						1.24	2- 3	.9	22									
	0	0	6	0		-28																

HOURLY PRECIPITATION (Water equivalent in inches)

Date	A.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	P.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	Date
1																								T	1
2						T	.01	.08	.02	.05	.03	.04	.08	T											2
3	T	T	.01	.33	.18	.12	.30	.03	.01	.01	.01	T	T												3
4																									4
5																									5
6													T	T	.05	.03	.03	.08	T						6
7																	T	.01	T						7
8																									8
9																									9
10																									10
11																		.01	.02	T					11
12																									12
13																						T	T	.04	13
14	.05	.01							T		T	T	T												14
15							T	T	T	.02	.03	T		T	.03	T	.01	T	T	T					15
16														T	T										16
17																									17
18													T	T	.01	.02	.06	.01	.02	.01	T	T			18
19														.03	T	T	T			T	T	T			19
20		T	T						T	.12	.01	.02	T							T					20
21		.03	.02						T		.01	.01								T	.03	.09	.11	.02	21
22	.02	.10	T	T	T	.02	.01	.01	.02	.02	T		T	T							T				22
23	T	T	T			T	T	T			T	T													23
24																									24
25															T								T	.05	25
26			T	T						T															26
27	.11	.05	T	T							T														27
28																									28
29																									29
30																									30
31																									31

* Extreme temperatures for the month. May be the last of more than one occurrence.
– Below zero temperature or negative departure from normal.
‡ ≤ 70° at Alaskan stations.
• Also on an earlier date, or dates.
X Heavy fog restricts visibility to ¼ mile or less.
T In the Hourly Precipitation table and in columns 9, 10, and 11 indicates an amount too small to measure.

The season for degree days begins with July for heating and with January for cooling.
Data in columns 6, 12, 13, 14, and 15 are based on 8 observations per day at 3-hour intervals.
Wind directions are those from which the wind blows. Resultant wind is the vector sum of wind directions and speeds divided by the number of observations. Figures for directions are tens of degrees from true North; i.e., 09 = East, 18 = South, 27 = West, 36 = North, and 00 = Calm. When directions are in tens of degrees in Col. 17, entries in Col. 16 are fastest observed 1-minute speeds. If the / appears in Col. 17, speeds are gusts.

Any errors detected will be corrected and changes in summary data will be annotated in the annual summary.

Subscription Price: Local Climatological Data $1.00 per year including annual Summary if published. Single copy: 10 cents for monthly Summary; 15 cents for annual Summary. Checks or money orders should be made payable and remittances and correspondence should be sent to the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402

I certify that this is an official publication of the Environmental Science Services Administration, and is compiled from records on file at the National Weather Records Center, Asheville, North Carolina 28801.

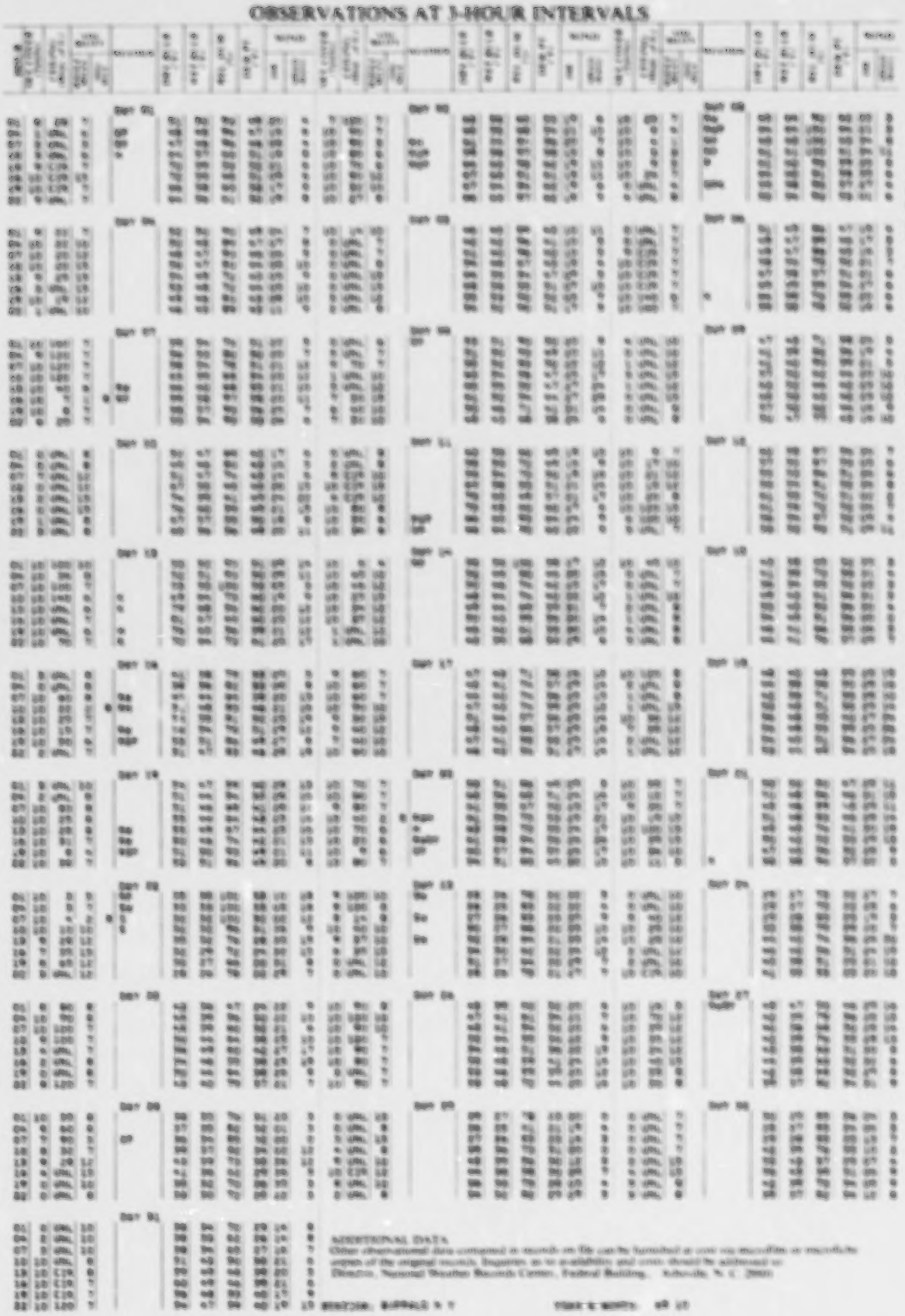
William S. Haggard
Director, National Weather Records Center

SUMMARY BY HOURS

Hour (Local time)	Averages: Sky cover (In tenths)	Station pressure (In.)	Dry bulb (°F)	Wet bulb (°F)	Rel. hum. %	Dew point (°F)	Wind speed (m.p.h.)	Resultant wind: Direction	Resultant wind: Speed (m.p.h.)
01	6	29.32	48	44	78	41	9.0	24	2.5
04	5	29.32	46	43	79	39	10.2	25	2.9
07	7	29.34	46	43	81	40	9.4	24	4.0
10	7	29.36	52	47	71	43	11.9	25	6.2
13	8	29.33	57	50	62	44	14.2	26	8.8
16	7	29.32	57	50	61	43	13.9	26	7.6
19	6	29.33	52	47	71	42	10.5	25	4.7
22	6	29.33	49	46	77	42	10.4	22	5.1

USCOMM—ESSA—ASHEVILLE 590

OBSERVATIONS AT 3-HOUR INTERVALS



NOTES:

SUPPLEMENTARY DATA

Other observational data contained in records on file can be furnished at cost via microfilm or microfiche copies of the original records. Inquiries as to availability and costs should be addressed to: Director, National Weather Records Center, Federal Building, Asheville, N. C. 28801

BUFFALO

I. Identification of Odorant Sources

No.	Name	Location
1	Westinghouse	East side of Buffalo Airport
2	Darling Rendering	On William St. by Erie-Lackawanna R.R.
4	Mobil Oil	On Buffalo River near Park Ave. bridge

II. Socio-Economic Data on Public Opinion Survey Test and Control Areas

Sex	Test Area (%)	Control Area (%)
Male	50.6	47.8
Female	49.4	52.2

Age	Test Area (%)	Control Area (%)
18-24	3.5	2.2
25-34	11.2	10.6
35-44	18.2	17.2
45-54	26.5	22.8
55-64	24.1	21.1
65+	14.7	25.6
Refused	1.8	0.6

Education	Test Area (%)	Control Area (%)
Under 8th Grade	13.5	22.2
Junior High	8.8	10.6
1-3 Years H.S.	14.7	21.7
H.S. Graduate	39.4	30.0
1-3 Years College	8.2	6.7
College Graduate	5.9	2.8
Post Graduate	0.6	0.6
Vocational	6.5	3.3
Refused	3.0	2.2

BUFFALO (Cont'd)

Family Size	Test Area (%)	Control Area (%)
1	8.2	7.8
2	27.6	36.7
3	15.9	16.1
4	20.6	16.1
5	9.4	8.9
6	7.6	4.4
7	3.5	5.0
8	1.2	2.2
9	0.6	-
10	0.6	-
More than 10	0.6	0.6
Refused	4.1	2.3

Annual Income	Test Area (%)	Control Area (%)
Under $5,000	18.2	31.1
$5,000 - $9,999	45.9	45.6
$10,000 - $14,999	20.0	12.2
$15,000 - $17,499	2.4	1.7
$17,500 - $19,999	2.4	0.6
$20,000 and over	1.2	-
Don't know/refused	10.0	8.9

Figure E-5
PHILADELPHIA, PA.
Five-Digit Zip Code Areas
(191 + Two Digits Shown = Zip Code)

LOCAL CLIMATOLOGICAL DATA

U.S. DEPARTMENT OF COMMERCE
MAURICE H. STANS, Secretary
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

PHILADELPHIA, PENNSYLVANIA
INTERNATIONAL AIRPORT
OCTOBER 1969

Latitude 39° 53' N Longitude 75° 15' W Elevation (ground) 5 ft. Standard time used: EASTERN

Date	Temperature (°F) Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days (Base 65°) Heating	Cooling	Weather types shown by code 1-8 on dates of occurrence	Snow, Sleet, or Ice on ground at 07AM (In.)	Precipitation Water equivalent (In.)	Snow, sleet (In.)	Avg. station pressure (In.) Elev. 28 feet m.s.l.	Wind Resultant direction	Resultant speed (m.p.h.)	Average speed (m.p.h.)	Fastest mile Speed (m.p.h.)	Direction	Sunshine Hours and tenths	Percent of possible	Sky cover (Tenths) Sunrise to sunset	Midnight to midnight	Date
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	76	50	63	1	54	2	0	1 8	0	0	0	30.06	19	5.2	9.3	7	SW	8.9	72	8	7	1
2	70	54	62	0	62	3	0	2 8	0	.38	0	29.96	13	7.2	7.9	13	SE	0.0	0	10	9	2
3	82*	69	76	15	66	0	11	1 8	0	.10	0	29.81	28	6.3	9.8	18	W	4.1	35	7	8	3
4	74	54	64	3	49	1	0	8	0	0	0	30.03	03	9.7	11.8	22	NE	11.7	100	0	0	4
5	64	45	55	-5	44	10	0		0	0	0	30.29	06	7.3	9.4	13	NE	7.3	62	0	4	5
6	69	40	55	-5	46	10	0	1 8	0	0	0	30.21	23	3.9	5.8	9	SW	10.9	94	3	4	6
7	73	47	60	1	55	5	0	1	0	T	0	30.12	20	7.9	8.3	14	S	1.3	12	10	8	7
8	69	57	63	4	60	2	0	1 8	0	.28	0	30.02	22	7.2	7.3	14	SW	0.0	0	10	9	8
9	70	47	59	0	46	6	0	1 8	0	0	0	30.14	33	1.1	9.3	7	W	11.4	100	0	0	9
10	71	42	57	-1	47	8	0	2 8	0	0	0	30.13	13	2.9	5.2	8	SE	10.9	92	0	0	10
11	68	53	61	3	56	4	0	1 8	0	T	0	30.10	02	3.8	6.0	7	NE	0.0	0	10	8	11
12	78	57	68	10	58	0	3	2 8	0	T	0	30.07	02	6.6	7.8	9	NE	7.9	70	6	4	12
13	69	55	62	5	59	3	0	1 8	0	.01	0	29.99	07	6.2	6.8	12	NE	1.8	14	10	8	13
14	73	52	63	6	56	2	0	2 8	0	T	0	29.84	33	4.3	9.6	18	N	1.8	16	10	8	14
15	61	40	51	-5	35	14	0		0	0	0	30.08	03	4.8	7.2	17	NE	11.1	99	1	1	15
16	65	39	52	-4	44	13	0	8	0	0	0	29.93	18	3.7	6.0	11	S	4.0	35	7	5	16
17	61	40	51	-4	38	14	0	8	0	0	0	29.88	29	9.3	10.2	24	SW	6.0	56	6	3	17
18	62	36	49	-6	31	16	0		0	0	0	30.19	25	9.3	10.1	18	W	11.1	100	0	1	18
19	70	45	58	3	39	7	0		0	T	0	30.18	24	6.6	7.1	11	W	8.7	81	8	6	19
20	79	52	66	12	54	0	1	8	0	T	0	29.85	23	11.3	11.4	19	W	9.6	87	2	3	20
21	70	44	57	3	44	8	0	3 8	0	.44	0	29.68	30	13.9	14.6	31	W	8.6	77	4	4	21
22	62	40	51	-3	32	14	0		0	T	0	29.73	31	8.7	12.1	28	NW	9.6	81	0	0	22
23	46	31	39	-14	13	26	0		0	0	0	30.30	33	12.8	13.1	21	NW	10.3	93	1	2	23
24	50	25*	38	-15	18	27	0		0	0	0	30.34	27	6.7	7.9	14	W	9.7	90	0	1	24
25	52	36	44	-8	32	21	0	8	0	0	0	30.39	23	6.0	8.1	13	SW	9.6	80	7	3	25
26	67	30	49	-3	35	16	0	1 8	0	0	0	30.17	22	4.9	5.9	12	W	8.8	82	3	4	26
27	62	46	54	3	42	11	0	1 8	0	T	0	30.04	31	6.9	8.6	18	N	8.0	80	6	10	27
28	55	40	48	-3	26	17	0		0	T	0	30.29	01	10.2	10.8	19	N	7.9	74	4	4	28
29	54	33	44	-7	23	21	0		0	0	0	30.49	01	7.8	8.8	13	N	10.6	100	4	3	29
30	60	33	47	-4	28	18	0	8	0	0	0	30.43	03	3.9	5.3	8	NE	10.6	100	1	0	30
31	62	34	48	-2	39	17	0	8	0	0	0	30.34	08	3.0	6.6	12	SE	9.8	89	0	0	31
	Sum 2044	Sum 1366				Total 316	Total 15			Total 1.13	Total 0	For the month: 30.10	30	2.0	8.4	31	W	Total 214.0	% for month	Sum 137	Sum 138	
	Avg. 65.9	Avg. 44.1	Avg. 55.0	Dep. -0.7	Avg. 43	Dep. 25	Dep.			Dep. -1.05						Date 21		Possible 263.0	82	Avg. 4.4	Avg. 4.5	

Number of days				Season to date	
Maximum Temp.		Minimum Temp.		Total (Heating)	Total (Cooling)
≧ 32°	≧ 90° ‡	≦ 32°	≦ 0°	370	1120
0	0	3	0	Dep. 19	Dep.

Number of days	
Precipitation ≧ .01 inch	5
Snow, sleet ≧ 1.0 inch	0
Thunderstorms	1
Heavy fog X	4

Greatest in 24 hours and dates: Precipitation		Snow, Sleet	Greatest depth on ground of snow, sleet or ice and date
.45	2- 3	0	0

HOURLY PRECIPITATION (Water equivalent in inches)

Date	A.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	P.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	Date
1																									1
2								T	T	T	T	T	.02	T	T	.04	T	T	.02	.07	.08	.12	T	T	2
3		.07	.03	T																					3
4																									4
5																									5
6																									6
7																								T	7
8	T	T	.01	.04	.07	.02	.01	.01	T	T			.03	.02	.02	T									8
9																									9
10																									10
11							T	T		T	T														11
12							T	T	T																12
13												T	.01	T	T						T	T	T	T	13
14	T																								14
15																									15
16																									16
17																									17
18																									18
19						T	T																	T	19
20																									20
21	.30	.12	.01	.01																					21
22							T	T		T	T														22
23																									23
24																									24
25																									25
26																									26
27			T	T															T	T			T	T	27
28	T																								28
29																									29
30																									30
31																									31

* Extreme temperatures for the month. May be the last of more than one occurrence.
− Below zero temperature or negative departure from normal.
‡ ≧ 70° at Alaskan stations.
÷ Also on an earlier date, or dates.
X Heavy fog restricts visibility to ¼ mile or less.
T In the Hourly Precipitation table and in columns 9, 10, and 11 indicates an amount too small to measure.

The season for degree days begins with July for heating and with January for cooling.

Data in columns 6, 12, 13, 14, and 15 are based on 8 observations per day at 3-hour intervals.

Wind directions are those from which the wind blows. Resultant wind is the vector sum of wind directions and speeds divided by the number of observations. Figures for directions are tens of degrees from true North; i.e., 09 = East, 18 = South, 27 = West, 36 = North, and 00 = Calm. When directions are in tens of degrees in Col. 17, entries in Col. 16 are fastest observed 1-minute speeds. If the / appears in Col. 17, speeds are gusts.

Any errors detected will be corrected and changes in summary data will be annotated in the annual summary.

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I certify that this is an official publication of the Environmental Science Services Administration, and is compiled from records on file at the National Weather Records Center, Asheville, North Carolina 28801.

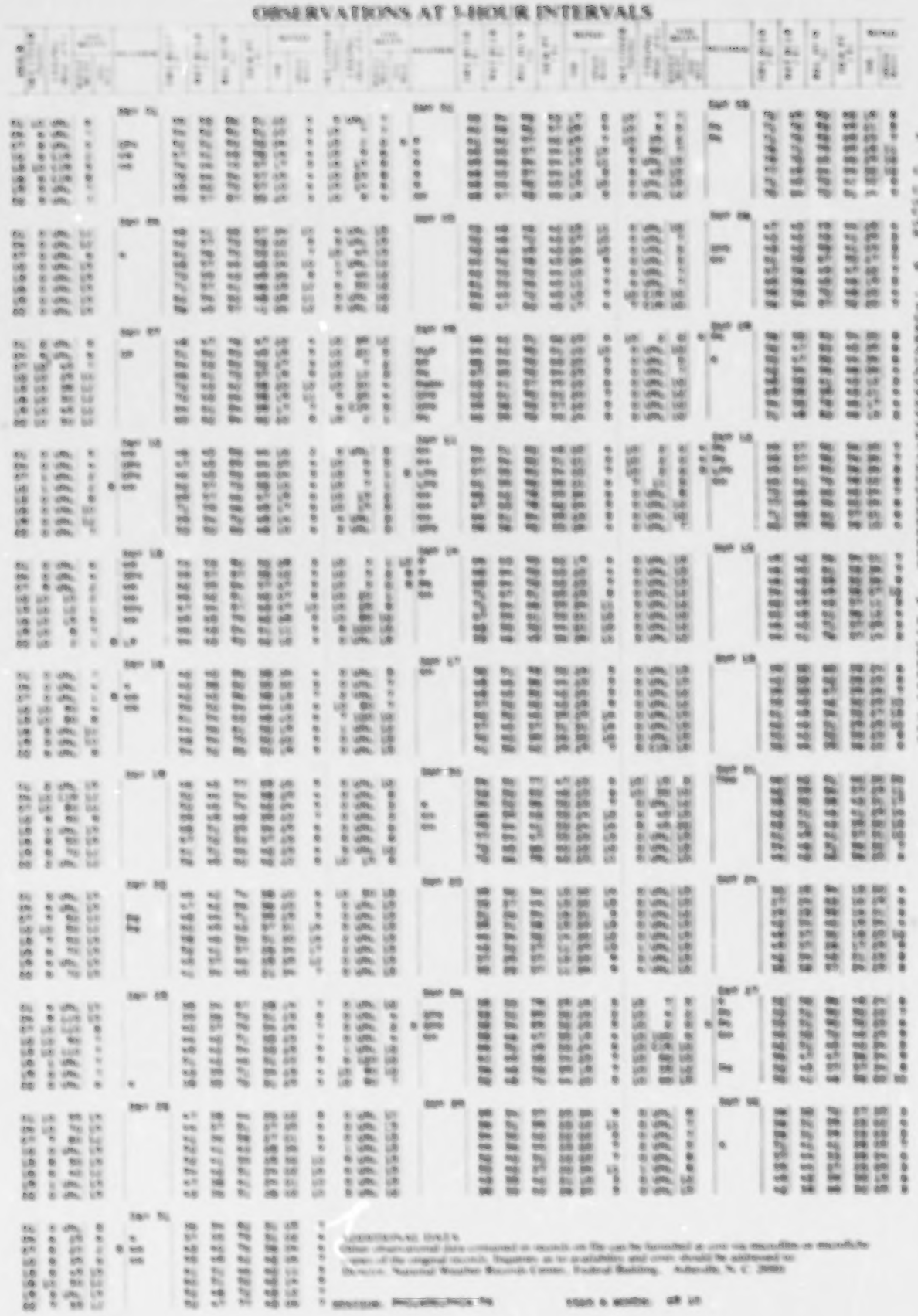
William H. Haggard

Director, National Weather Records Center

SUMMARY BY HOURS

Hour (Local time)	Averages: Sky cover (tenths)	Station pressure (In.)	Dry bulb (°F)	Wet bulb (°F)	Relative humidity (%)	Dew point (°F)	Wind speed (m.p.h.)	Resultant wind: Direction	Speed (m.p.h.)
01	4	30.10	50	46	77	44	7.2	30	5.1
04	4	30.09	49	46	78	43	7.1	31	5.4
07	5	30.12	48	46	79	43	7.6	33	5.9
10	5	30.13	59	52	61	45	9.9	34	5.8
13	6	30.09	64	54	52	43	10.9	28	5.6
16	5	30.06	63	53	60	43	10.1	34	6.1
19	4	30.10	56	50	63	43	9.0	30	.4
22	4	30.11	53	48	74	44	7.3	07	.9

OBSERVATIONS AT 3-HOUR INTERVALS



PHILADELPHIA

I. Identification of Odorant Sources

No.		
1	Rohm & Haas/Allied Chemical	Plots next to Frankford Arsenal
2	Atlantic/Gulf Oil Refineries	Area between Moore St. on the north, Vare Ave. and 26th St. on the east, and the Schuykill River on the west
3	Northeast Sewage Treatment Plant	Bounded by Lewis, Delaware, Castor and Richmond Sts.
4	Enterprise Rendering	On Delaware River between Cottman and Bleigh Aves.
A	Superior Paint and Varnish	Scovel and Westfield Ave.
E	Delaware Valley Tanning	Evans and Front Sts. along Delaware River

II. Socio-Economic Data on Public Opinion Survey Test and Control Areas

Sex	Test Area (%)	Control Area (%)
Male	51.4	48.9
Female	48.6	51.1

Age	Test Area (%)	Control Area (%)
18-24	5.7	2.3
25-34	12.0	16.5
35-44	12.6	22.2
45-54	25.1	21.6
55-64	20.6	18.2
65+	22.9	17.0
Refused	1.1	2.2

Education	Test Area (%)	Control Area (%)
Under 8th Grade	34.9	10.2
Junior High	5.7	4.0
1-3 Years H.S.	18.9	10.8
H.S. Graduate	33.1	39.2
1-3 Years College	5.1	9.7
College Graduate	0.6	14.8
Post Graduate	0.6	7.4
Vocational	0.6	1.7
Refused	1.2	2.8

PHILADELPHIA (Cont'd)

Family Size	Test Area (%)	Control Area (%)
1	7.4	7.4
2	33.7	25.6
3	21.7	17.0
4	15.4	22.2
5	12.0	10.2
6	5.1	8.5
7	2.3	3.4
8	-	1.1
9	-	-
10	-	0.6
More than 10	-	0.6
Refused	2.3	3.4

Annual Income	Test Area (%)	Control Area (%)
Under $5,000	26.9	13.1
$5,000 - $9,999	42.3	30.1
$10,000 - $14,999	10.9	18.8
$15,000 - $17,499	1.7	5.7
$17,500 - $19,999	0	4.5
$20,000 and over	-	6.3
Don't know/Refused	18.3	21.6

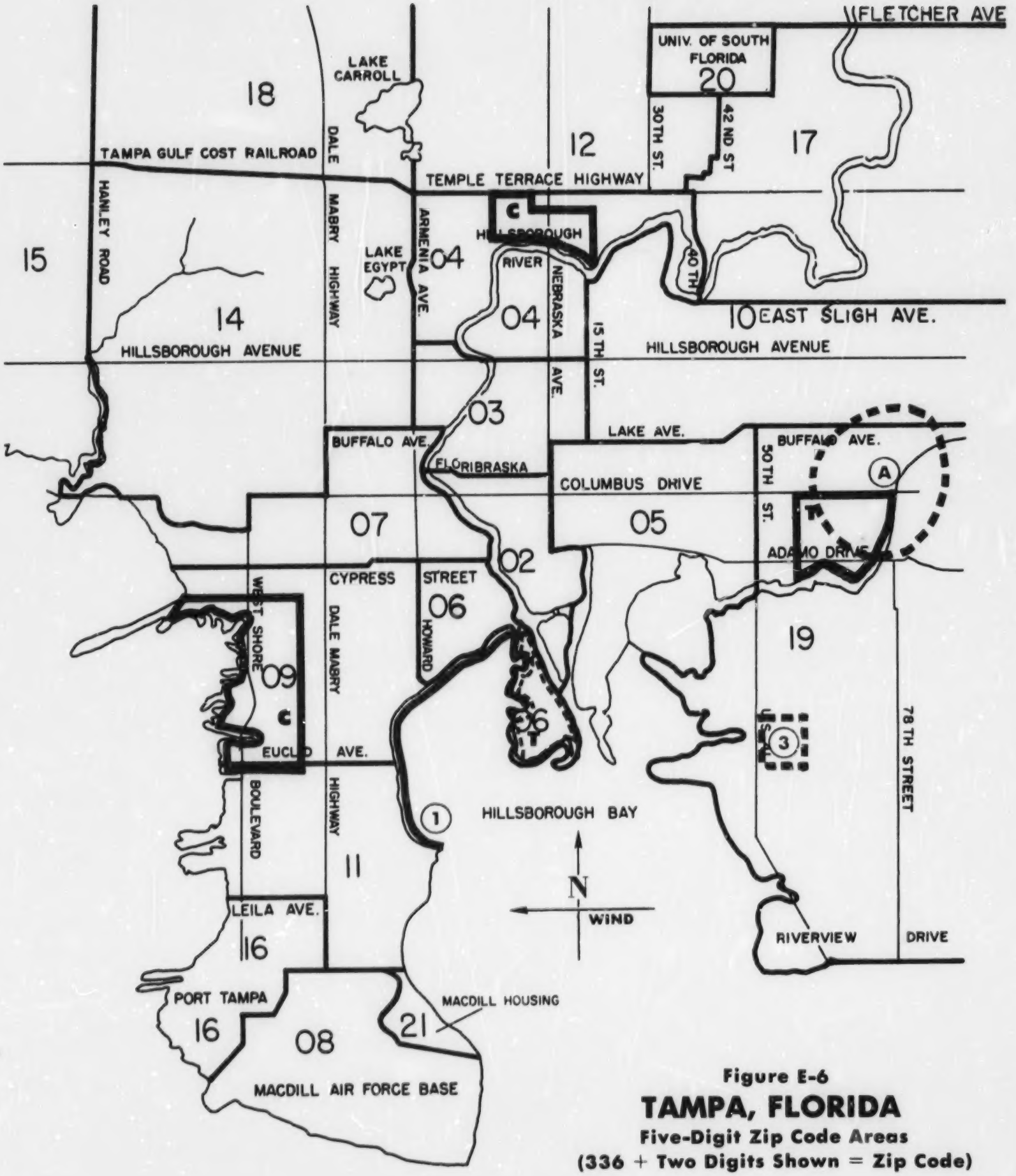


Figure E-6

TAMPA, FLORIDA

Five-Digit Zip Code Areas

(336 + Two Digits Shown = Zip Code)

LOCAL CLIMATOLOGICAL DATA

U.S. DEPARTMENT OF COMMERCE
MAURICE H. STANS, Secretary
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

TAMPA, FLORIDA
INTERNATIONAL AIRPORT
OCTOBER 1969

Latitude 27° 58' N Longitude 82° 32' W Elevation (ground) 19 ft Standard time used: EASTERN

Date	Temperature (°F) Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days (Base 65°) Heating	Cooling	Weather types shown by code 1-9 on dates of occurrence (1 Fog, 2 Heavy Fog, 3 Thunderstorm, 4 H, 5 Sleet, 6 Hail, 7 Glaze, 8 Dust/storm, 9 Smoke, Haze, Blowing Snow)	Snow, Sleet, or Ice on ground at 07AM (In.)	Precipitation Water equivalent (In.)	Snow, sleet (In.)	Avg. station pressure (In.) Elev. 11 feet m.s.l.	Wind Resultant direction	Resultant speed (m.p.h.)	Average speed (m.p.h.)	Fastest mile Speed (m.p.h.)	Fastest mile Direction	Sunshine Hours and tenths	Sunshine Percent of possible	Sky cover (Tenths) Sunrise to sunset	Sky cover (Tenths) Midnight to midnight	Date
	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	87	75	81	2	73	0	16		0	.33	0	29.75	15	8.4	9.6	16	13	5.7	48	9	9	1
2	78	74	76	-3	72	0	11	1	0	.87	0	29.83	03	3.5	7.3	14	33	0.0	0	10	10	2
3	84	74	79	1	73	0	14		0	T	0	29.79	32	4.5	6.0	8	27	5.7	48	9	9	3
4	85	74	80	2	74	0	15	8	0	.10	0	29.80	30	2.9	6.3	10	31	3.0	25	10	10	4
5	85	73	79	1	72	0	14	1 8	0	.05	0	29.87	06	8.4	8.5	14	07	5.7	47	8	7	5
6	87	70	79	1	65	0	14		0	T	0	29.94	07	10.4	10.6	16	09	10.9	93	2	2	6
7	87	70	79	2	66	0	14		0	T	0	29.97	07	9.1	9.2	14	08	8.1	69	5	4	7
8	89	67	78	1	67	0	13		0	T	0	29.97	05	5.9	6.9	10	06	7.9	68	5	4	8
9	88	68	78	1	65	0	13		0	0	0	29.97	04	7.3	8.2	12	04	8.9	76	6	3	9
10	88	68	78	2	65	0	13		0	0	0	29.96	06	6.9	7.3	13	07	9.8	84	4	2	10
11	89*	68	79	3	67	0	14		0	0	0	29.97	07	7.1	7.3	14	08	9.2	79	4	4	11
12	87	69	78	2	63	0	13		0	0	0	30.00	06	7.6	7.9	12	08	11.4	98	0	0	12
13	83	64	74	-2	61	0	9	8	0	0	0	29.94	34	3.4	6.2	12	27	11.1	96	0	0	13
14	87	64*	76	1	65	0	11	8	0	0	0	29.85	32	4.7	4.9	12	30	9.1	79	2	1	14
15	86	65	76	1	65	0	11	8	0	0	0	29.90	30	1.1	4.0	8	27	8.8	76	2	1	15
16	87	66	77	2	64	0	12	8	0	0	0	29.97	34	1.9	5.6	10	29	9.4	82	1	2	16
17	87	69	78	3	66	0	13	8	0	0	0	29.99	04	6.7	7.3	12	06	3.0	26	10	8	17
18	86	71	79	5	68	0	14	8	0	T	0	30.06	07	10.7	11.1	16	10	6.1	53	10	10	18
19	81	72	77	3	70	0	12		0	.24	0	30.10	10	8.3	9.5	17	12	0.3	3	10	10	19
20	87	72	80	6	71	0	15	1 8	0	0	0	30.04	10	8.0	8.3	13	12	4.1	36	9	8	20
21	84	73	79	5	70	0	14	8	0	0	0	29.88	12	6.6	6.9	10	13	0.9	8	10	9	21
22	86	74	80	6	72	0	15	1 8	0	.05	0	29.81	11	3.1	6.3	10	04	3.0	27	10	10	22
23	85	74	80	7	69	0	15		0	0	0	29.94	06	10.8	10.9	17	05	2.3	20	10	10	23
24	76	69	73	0	62	0	8		0	T	0	30.12	09	16.8	17.1	20	09	0.1	0	10	10	24
25	73	67	70	-3	55	0	5	1 8	0	.47	0	30.11	07	8.6	9.1	13	08	0.0	0	10	10	25
26	82	68	75	3	67	0	10		0	.17	0	30.00	07	8.2	9.4	12	09	2.7	24	9	10	26
27	84	68	76	4	67	0	11	2	0	.13	0	29.95	06	6.2	7.1	10	36	5.1	43	8	8	27
28	83	70	77	5	66	0	12		0	.47	0	29.96	05	10.4	10.6	15	06	3.8	34	9	9	28
29	78	69	73	1	64	0	8	8	0	.03	0	30.01	06	13.1	13.2	15	06	0.0	0	10	10	29
30	77	67	72	1	62	0	7		0	T	0	29.94	07	11.9	12.5	16	08	0.0	0	10	10	30
31	82	69	76	5	66	0	11		0	.21	0	29.79	06	10.3	10.3	14	08	1.8	16	10	10	31
	Sum 2606	Sum 2161				Total 0	Total 377	Number of days		Total 3.12	Total 0	For the month: 29.94	07	6.2	8.6	20	09	Total 157.9	%	Sum 222	Sum 210
	Avg. 84.1	Avg. 69.7	Avg. 76.9	Dep. 2.2	Avg. 67	Dep. 0	Dep.	Precipitation ≥ .01 inch	12	Dep. 0.34						Date	24	Possible 356.3	for month 44	Avg. 7.2	Avg. 6.8
								Snow, sleet ≥ 1.0 inch	0											
						Season to date Total 3036		Thunderstorms	0												
								Heavy fog X	0												

Number of days Maximum Temp. ≤ 32°	Maximum Temp. ≥ 90°	Minimum Temp. ≤ 32°	Minimum Temp. ≤ 0°
0	0	0	0

Season to date	Total	Dep.
	0	
	0	

Greatest in 24 hours and dates	Precipitation	Snow, Sleet
	1.20	1- 2

Greatest depth on ground of snow, sleet or ice and date

HOURLY PRECIPITATION (Water equivalent in inches)

Date	A.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	P.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	Date
1									.10	.22	.18	T .23	T	T		.04	.07	.20	T		T	.02	T		1
2												T	.14	T	T	T			T	T	T				2
3										T	T										T	T	.06	.04	3
4														T		T								T	4
5	T	.01	.04	T																					5
6	T																								6
7				T	T															T					7
8																									8
9																									9
10																									10
11																									11
12																									12
13																									13
14																									14
15																									15
16																									16
17																T									17
18													T			T	T	.10	.06	.08	T				18
19																									19
20																									20
21																	T	T			T	T			21
22				.03	.02	T	T																		22
23										T	T	T				T	T						T	T	23
24										T	T	T	T												24
25	T	.16	.04	T	T	T	.09	T	.02	T	T	T		.03	.08	T	.03	T	.02	T	.02	.01	.01	.02	25
26	.02	.05	.03	.03	T						.02	T						T			T	.06	T	.07	26
27																									27
28	.16	.01	.15	.13	.02					T				T	T	.02	.01	T							28
29			T											T	T				T	T	T	T	T	T	29
30			T	T	T	T	T	T	T							T	.04	.06	.11	T			T	T	30
31	T																								31

* Extreme temperatures for the month May be the last of more than one occurrence.
\- Below zero temperature or negative departure from normal.
§ -70° at Alaskan stations.
+ Also on an earlier date, or dates.
X Heavy fog restricts visibility to ¼ mile or less.
T In the Hourly Precipitation table and in columns 9, 10, and 11 indicates an amount too small to measure.

The season for degree days begins with July for heating and with January for cooling.
Data in columns 6, 12, 13, 14, and 15 are based on 8 observations per day at 3-hour intervals.
Wind directions are those from which the wind blows. Resultant wind is the vector sum of wind directions and speeds divided by the number of observations. Figures for directions are tens of degrees from true North, i.e., 09 = East, 18 = South, 27 = West, 36 = North, and 00 = Calm. When directions are in tens of degrees in Col. 17, entries in Col. 16 are fastest observed 1-minute speeds. If the / appears in Col. 17, speeds are gusts.

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William S. Haggard

Director, National Weather Records Center

SUMMARY BY HOURS

Hour (Local time)	AVERAGES Sky cover (In tenths)	Station pressure (In.)	Dry bulb (°F)	Wet bulb (°F)	Rel. hum. %	Dew point (°F)	Wind speed (m.p.h.)	Resultant wind Direction	Resultant wind Speed (m.p.h.)
01	6	29.94	72	69	85	67	7.5	07	6.1
04	6	29.92	71	68	87	67	7.3	07	5.9
07	7	29.95	71	68	86	67	7.9	07	6.4
10	7	29.98	79	72	72	68	10.0	07	7.4
13	7	29.94	82	73	63	68	10.5	06	5.4
16	7	29.91	82	72	62	67	9.6	06	5.2
19	7	29.93	76	70	75	67	8.4	06	6.4
22	6	29.96	73	69	81	67	7.5	07	6.9

USCOMM—ESSA—ASHEVILLE 300

OBSERVATIONS AT 3-HOUR INTERVALS

HOUR	SKY COVER (Tenths)	CEILING (Hundreds of Feet)	VISIBILITY (Statute Miles)	WEATHER	DRY BULB TEMP (°F)	WET BULB TEMP (°F)	DEW POINT TEMP (°F)	RELATIVE HUMIDITY (%)	WIND DIR (Tens of Degrees)	WIND SPEED (Knots)	SKY COVER (Tenths)	CEILING (Hundreds of Feet)	VISIBILITY (Statute Miles)	WEATHER	DRY BULB TEMP (°F)	WET BULB TEMP (°F)	DEW POINT TEMP (°F)	RELATIVE HUMIDITY (%)	WIND DIR (Tens of Degrees)	WIND SPEED (Knots)	SKY COVER (Tenths)	CEILING (Hundreds of Feet)	VISIBILITY (Statute Miles)	WEATHER	DRY BULB TEMP (°F)	WET BULB TEMP (°F)	DEW POINT TEMP (°F)	RELATIVE HUMIDITY (%)	WIND DIR (Tens of Degrees)	WIND SPEED (Knots)
DAY 01											DAY 02										DAY 03									
01	1	UNL	8		73	73	90	72	11	10	10	150	15		79	74	90	73	16	6	16	9	15		73	72	87	71	04	6
04	6	CIR	10		73	73	90	72	13	8	10	70	15		78	73	87	72	16	4	10	4	12		74	73	94	72	33	6
07	8	160	15		77	74	85	72	13	14	10	70	3		75	73	90	72	10	4	9	28	7		73	72	87	71	28	4
10	8	160	10		86	78	70	73	17	13	10	80	0	12 RF	76	75	94	74	02	4	10	12	10		80	73	99	73	31	5
13	9	120	12		80	76	83	73	19	8	10	20	2	6 RF	75	73	90	72	33	12	10	30	12		82	76	94	73	[illegible]	6
16	10	18	8	RW	81	75	77	73	20	7	10	7	10		77	74	83	72	36	9	8	90	12		82	77	79	73	[illegible]	7
19	10	45	10		77	75	91	74	15	7	10	25	10	R	75	72	85	70	05	7	7	30	15		78	73	88	74	29	4
22	10	20	12		77	75	91	74	00	0	10	140	10		74	72	90	71	04	5	8	25	10		78	73	88	74	01	4
DAY 04											DAY 05										DAY 06									
01	4	UNL	15		73	73	90	72	29	5	10	31	8	R	70	73	87	72	07	9	15	48	10		73	72	85	70	06	9
04	9	22	12		73	73	90	72	27	4	9	65	8		73	72	93	71	07	8	0	UNL	10		74	68	82	66	09	7
07	10	27	8		76	74	90	73	28	4	4	UNL	5	GF	74	73	94	72	08	7	1	UNL	15		70	66	81	64	06	7
10	10	7	5		79	75	85	74	31	7	8	15	12		82	76	77	74	07	10	0	UNL	15		61	69	53	62	07	12
13	10	26	12	L	84	77	72	74	30	7	10	45	15		82	74	69	71	08	10	5	UNL	15		86	71	46	63	07	13
16	10	35	8		82	76	77	74	28	4	10	120	8		80	75	79	73	07	5	5	UNL	15		88	71	46	62	09	10
19	10	50	4		80	76	82	74	14	5	7	130	7		76	73	83	71	06	3	0	UNL	15		79	69	58	63	07	9
22	10	9	10	R	79	76	88	75	06	8	5	UNL	7		73	72	83	70	05	7	0	UNL	15		72	68	82	66	06	7
DAY 07											DAY 08										DAY 09									
01	0	UNL	15		71	68	87	67	05	6	0	UNL	15		72	69	84	67	07	5	0	UNL	15		79	67	84	65	07	5
04	10	50	10	R	71	69	90	68	08	9	0	UNL	12		68	66	90	65	04	4	0	UNL	15		68	66	90	65	03	5
07	8	80	10		72	69	84	67	07	9	6	UNL	10		68	65	87	64	08	3	1	UNL	10		68	66	90	65	03	6
10	8	70	15		82	72	61	67	06	9	3	UNL	15		83	73	63	69	03	8	4	UNL	15		81	72	63	67	05	10
13	2	UNL	15		85	72	51	63	07	11	7	CIR	15		83	73	55	67	04	7	6	UNL	15		85	72	51	63	03	7
16	4	UNL	15		86	72	50	65	08	8	7	80	15		83	72	53	66	08	7	8	CIR	15		85	71	49	64	04	9
19	3	UNL	15		80	70	60	63	08	5	9	40	15		79	72	72	69	04	5	6	70	15		78	70	67	66	05	9
22	0	UNL	15		73	69	71	68	06	7	5	UNL	15		76	69	69	65	09	7	0	UNL	15		73	68	79	66	06	6
DAY 10											DAY 11										DAY 12									
01	0	UNL	15		70	67	87	66	06	5	5	UNL	15		70	67	84	65	06	5	0	UNL	15		72	68	82	66	08	7
04	0	UNL	15		69	66	87	65	04	5	2	UNL	15		70	67	87	66	05	4	0	UNL	12		69	66	87	65	07	6
07	0	UNL	12		69	66	87	65	03	6	8	190	10		69	67	90	66	07	6	0	UNL	10		69	66	87	65	04	7
10	2	UNL	15		81	73	67	69	07	7	2	UNL	15		82	74	67	70	08	8	0	UNL	15		81	70	58	64	07	9
13	3	UNL	15		85	72	51	65	03	7	4	UNL	15		83	73	55	67	06	5	0	UNL	15		85	71	48	63	05	8
16	8	UNL	15		84	71	51	64	07	7	5	UNL	15		87	73	52	67	06	7	0	UNL	15		86	69	42	60	05	9
19	5	UNL	15		78	69	62	64	07	8	6	40	15		79	70	62	65	09	6	0	UNL	15		73	66	62	61	05	6
22	0	UNL	15		74	68	74	65	08	6	2	UNL	15		73	70	76	67	09	9	0	UNL	15		70	66	79	63	06	5
DAY 13											DAY 14										DAY 15									
01	0	UNL	15		68	65	84	65	05	5	0	UNL	8		65	62	84	60	24	5	0	UNL	10		67	63	90	64	08	0
04	0	UNL	10		66	63	87	62	05	5	0	UNL	8		65	63	90	62	00	0	0	UNL	10		65	63	90	62	00	0
07	0	UNL	8	K	66	62	90	61	06	5	0	UNL	6	K	67	65	90	64	00	0	0	UNL	4	K	67	65	90	64	12	3
10	2	UNL	10		80	68	52	61	38	6	3	UNL	7		82	74	67	70	33	7	3	UNL	7		81	72	63	67	35	5
13	0	UNL	15		83	68	46	60	28	10	6	35	12		85	73	55	67	31	8	3	UNL	6	K	85	73	57	68	22	7
16	0	UNL	15		83	68	46	60	29	8	0	UNL	12		85	72	53	66	30	9	3	UNL	8		84	71	53	65	25	6
19	0	UNL	12		81	66	42	56	29	8	0	UNL	12		73	68	79	66	33	5	0	UNL	12		74	70	82	68	33	5
22	0	UNL	10		69	64	76	61	32	4	0	UNL	15		69	66	87	65	00	0	0	UNL	12		72	67	79	65	04	6
DAY 16											DAY 17										DAY 18									
01	9	55	15		70	67	84	65	05	3	0	UNL	10		70	67	87	66	08	4	10	50	6	K	74	69	79	67	07	3
04	1	UNL	15		66	65	84	63	33	4	0	UNL	10		69	66	87	65	36	3	8	15	6	K	73	70	87	69	05	8
07	0	UNL	4	KH	66	64	90	63	07	4	10	80	6		69	66	87	65	05	7	10	CIR	8	K	72	69	84	67	06	8
10	0	UNL	8	K	83	72	57	66	05	6	10	80	6	K	78	70	67	66	07	8	9	CIR	8		80	71	65	67	07	12
13	4	UNL	8	K	86	74	55	68	24	7	8	UNL	6	K	86	74	57	69	04	7	8	CIR	8		85	76	59	69	06	12
16	0	UNL	7		86	68	39	58	25	6	10	CIR	5	K	84	72	55	66	02	9	10	CIR	12		80	73	72	70	08	13
19	1	UNL	8		74	69	76	66	33	5	7	CIR	10		79	71	67	67	02	6	10	130	15		77	71	74	68	07	9
22	0	UNL	10		72	68	82	66	03	4	10	50	10		77	70	71	67	06	5	10	70	15		76	71	84	69	10	10
DAY 19											DAY 20										DAY 21									
01	10	60	15		74	71	84	69	09	8	10	130	13		72	70	90	69	07	5	4	UNL	12		73	72	85	70	12	6
04	10	90	12		74	71	87	70	08	6	10	150	7		74	72	90	71	09	9	3	UNL	7		73	71	90	70	11	5
07	10	CIR	10		75	72	85	70	09	8	10	150	4	KH	76	73	87	72	10	7	10	CIR	5	KH	73	71	90	70	12	4
10	10	100	12		80	74	74	71	12	11	10	18	7		80	76	82	74	12	8	10	180	7		78	74	82	72	13	9
13	10	70	15		81	73	69	70	12	10	9	70	12		86	77	65	73	12	8	10	180	10		82	76	67	70	14	8
16	10	120	12	R	81	74	72	71	12	7	8	UNL	13		87	79	57	70	09	8	10	180	14		83	73	61	68	14	7
19	10	70	5	R	72	70	90	69	11	11	9	UNL	15		80	74	76	71	09	8	10	CIR	14		79	73	74	70	08	6
22	10	CIR	15		72	70	90	69	02	5	8	UNL	15		78	73	77	70	09	8	10	31	13		78	73	77	70	10	8
DAY 22											DAY 23										DAY 24									
01	10	30	10		76	73	87	72	11	7	10	100	12		75	72	87	71	04	5	10	17	12		74	68	76	65	07	14
04	10	9	1	R	76	73	87	72	11	4	10	9	8		74	72	90	71	08	7	10	39	14		73	66	69	62	07	13
07	10	7	2	K	76	73	87	72	10	6	10	100	8		74	72	90	71	07	6	10	70	10		73	66	66	61	09	13
10	10	11	6	K	80	76	82	74	12	6	9	120	10		78	73	79	71	08	9	10	46	10		73	66	62	61	08	15
13	10	130	10		85	77	70	74	29	6	10	140	10		85	75	61	70	06	11	10	33	7		76	67	60	61	10	16
16	10	150	12		84	75	65	71	25	4	10	140	10		81	71	60	66	05	13	10	48	10		73	66	62	61	09	13
19	10	120	10		79	75	82	73	04	7	10	70	12		77	70	69	66	06	14	10	100	15		73	63	64	60	09	17
22	10	100	15		75	73	85	71	09	4	10	13	10		75	70	76	67	07	11	10	100	10		72	63	68	61	09	12
DAY 25											DAY 26										DAY 27									
01	10	50	10	R	69	65	81	63	07	5	10	120	6	R	68	67	93	66	12	8	5	UNL	15		69	66	87	65	07	5
04	10	50	12	R	68	65	87	64	07	9	10	31	10	R	68	66	90	65	07	7	6	3	15		68	66	87	64	07	5
07	10	60	6	R	68	65	87	64	09	10	10	4	10		69	67	90	66	01	9	10	2	0	8 F	68	66	90	65	05	6
10	10	90	6	R	70	67	87	66	09	8	10	7	10		72	69	84	67	09	8	7	UNL	8		76	71	79	69	09	7
13	10	120	6	R	73	69	82	67	07	9	10	18	15		80	73	72	70	07	9	8	30	10		82	73	63	69	10	6
16	10	40	5	RKH	70	67	87	66	03	9	9	30	15		81	72	65	68	07	9	9	CIR	10		82	74	61	67	04	6
19	10	90	8	R	68	65	87	64	07	9	10	30	15		72	68	82	66	08	8	10	39	15		77	71	74	68	03	8
22	10	12	5	RF	68	66	90	65	07	4	9	60	12		71	67	81	65	07	7	10	19	9	R	73	71	90	70	02	8
DAY 28											DAY 29										DAY 30									
01	10	100	6	R	71	69	90	68	03	6	10	80	7		70	66	81	64	05	12	10	120	15		70	63	68	59	04	10
04	10	150	15	R	70	67	87	66	07	6	10	75	7		70	66	81	64	06	11	10	100	15	R	70	63	66	58	08	9
07	10	150	15		70	67	87	66	03	7	10	70	6	K	71	67	79	64	05	13	10	120	10	R	68	62	71	58	04	8
10	10	11	10		74	70	82	68	05	10	10	70	6	K	73	68	76	65	07	13	10	120	10		71	65	73	62	08	9
13	8	35	12		82	72	61	67	05	12	10	26	10		76	69	69	65	06	9	10	120	10		76	68	66	64	08	14
16	10	35	12		80	70	58	64	06	13	10	8	1	8 RK	70	67	87	66	06	10	10	120	12		76	68	66	64	08	12
19	7	90	15		74	66	66	62	06	9	10	40	8		69	65	81	63	05	11	10	39	10	R	73	67	74	64	07	13
22	8	90	15		71	66	76	63	04	11	10	120	15		70	64	75	61	07	13	10	10	10	R	71	67	81	65	09	12
DAY 31																														
01	10	30	12		69	66	84	64	05	10																				
04	10	120	15		70	66	79	63	05	12																				
07	10	40	12		70	66	81	64	06	9																				
10	10	35	7		76	69	71	66	08	10																				
13	10	25	10		81	72	65	68	08	12																				
16	10	22	10	RW	80	71	65	67	06	7																				
19	10	45	2	R	71	69	90	68	06	6																				
22	9	30	15		71	69	90	68	06	7																				

STATION: TAMPA FLA YEAR & MONTH: 69 10

ADDITIONAL DATA
Other observational data contained in records on file can be furnished at cost via microfilm or microfiche copies of the original records. Inquiries as to availability and costs should be addressed to: Director, National Weather Records Center, Federal Building, Asheville, N. C. 28801

NOTES

CEILING COLUMN

UNL indicates an unlimited ceiling.
CIR indicates a circiform cloud ceiling of unknown height.

WEATHER COLUMN

+	Tornado
T	Thunderstorm
Q	Squall
R	Rain
RW	Rain showers
ZR	Freezing rain
L	Drizzle
ZL	Freezing drizzle
S	Snow
SP	Snow pellets
IC	Ice crystals
SW	Snow showers
SG	Snow grains
IP	Sleet
A	Hail
AP	Small hail
F	Fog
H	Ice fog
GF	Ground fog
BD	Blowing dust
BN	Blowing sand
BS	Blowing snow
BY	Blowing spray
K	Smoke
H	Haze
D	Dust

WIND COLUMNS

Directions are those from which the wind blows, indicated in tens of degrees from true North; i. e. 09 for East, 18 for South, 27 for West. Entry of 00 in the direction column indicates calm.

Speed is expressed in knots; multiply by 1.15 to convert to miles per hour.

TAMPA

I. Identification of Odorant Sources

No.	Name	Location
1	Bay odors (decaying algae in Hillsborough Bay)	
3	Nitram Fertilizer Co.	Highway 45 at 36th Ave.
A	Stauffer Chemical/ Helena Chemical	Orient Rd. between Buffalo Ave. and Drive Ave.

II. Socio-Economic Data on Public Opinion Survey Test and Control Areas

Sex	Test Area (%)	Control Area (%)
Male	49.7	50.3
Female	50.3	49.7

Age	Test Area (%)	Control Area (%)
18-24	6.9	2.9
25-34	23.4	14.3
35-44	25.1	25.1
45-54	19.4	21.1
55-64	15.4	20.6
65 +	9.7	16.0
Refused	-	-

Education	Test Area (%)	Control Area (%)
Under 8th Grade	14.9	14.3
Junior High	7.4	5.1
1-3 Years H.S.	9.1	9.1
H.S. Graduate	38.9	28.0
1-3 Years College	14.3	17.1
College Graduate	5.1	12.0
Post Graduate	5.7	6.3
Vocational	2.9	5.7
Refused	1.7	2.3

TAMPA (Cont'd)

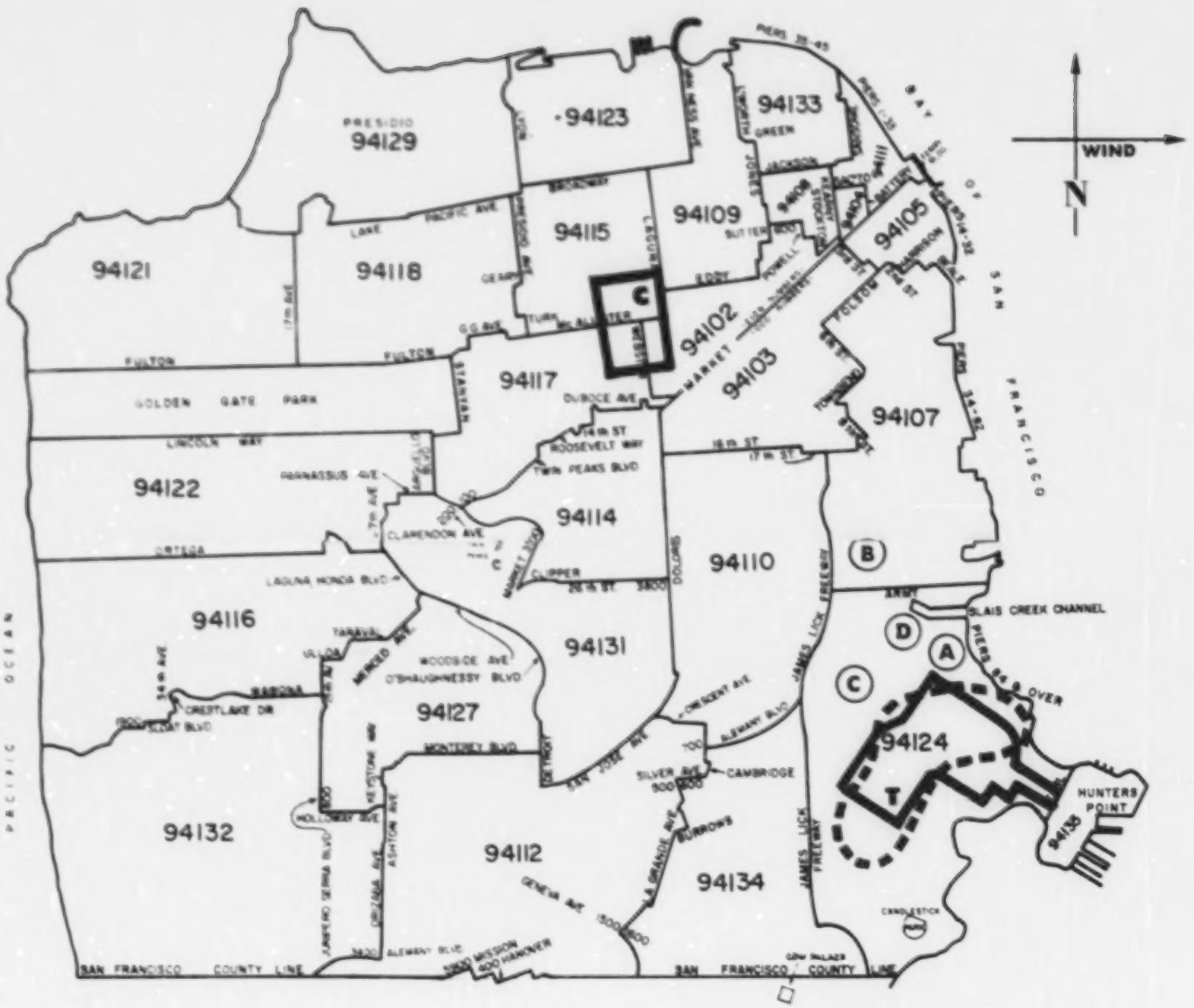
Family Size	Test Area (%)	Control Area (%)
1	5.7	8.6
2	33.7	31.4
3	17.1	18.9
4	22.9	18.9
5	10.3	13.7
6	5.7	4.6
7	2.3	0.6
8	2.3	2.3
9	-	-
10	-	-
More than 10	-	-
Refused	-	1.1

Annual Income	Test Area (%)	Control Area (%)
Under $5,000	17.1	20.6
$5,000 - $9,999	40.6	26.9
$10,000 - $14,999	16.6	19.4
$15,000 - $17,499	2.3	8.6
$17,500 - $19,999	1.7	4.0
$20,000 and over	6.3	7.4
Don't know/Refused	15.5	13.2

Figure E-7

SAN FRANCISCO, CALIFORNIA

Five-Digit Zip Code Areas



LOCAL CLIMATOLOGICAL DATA

U.S. DEPARTMENT OF COMMERCE
MAURICE H. STANS, Secretary
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

SAN FRANCISCO, CALIFORNIA
FEDERAL OFFICE BLDG.
OCTOBER 1969

Latitude 37° 47' N Longitude 122° 25' W Elevation (ground) 52 ft. Standard time used: PACIFIC

Date	Temperature (°F) Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days (Base 65°) Heating	Cooling	Weather types shown by code 1-9 on dates of occurrence (123 456 789: Fog, Heavy Fog, Thunderstorm, Sleet, Hail, Glaze, Duststorm, Sandstorm, Blowing Snow)	Snow Sleet, or Ice on ground at 0SAM (In.)	Precipitation Water equivalent (In.)	Snow, sleet (In.)	Avg station pressure (In.) Elev. 155 feet m.s.l.	Wind Resultant direction	Resultant speed (m.p.h.)	Average speed (m.p.h.)	Fastest mile Speed (m.p.h.)	Fastest mile Direction	Sunshine Hours and tenths	Sunshine Percent of possible	Sky cover (Tenths) Sunrise to sunset	Sky cover (Tenths) Midnight to midnight	Date
1	68	56	62	-1		3	0		0	0	0					24	W	11.8	100			1
2	67	54	61	-2		4	0		0	0	0					17	W	11.8	100			2
3	73	58	66	3		0	1		0	0	0					22	NW	11.7	100			3
4	75	60	68	5		0	3		0	0	0					16	NE	11.6	99			4
5	78	58	68	5		0	3		0	0	0					9	W	11.6	100			5
6	77	58	68	5		0	3		0	0	0					12	W	11.6	100			6
7	71	58	64	1		1	0		0	0	0					20	W	8.5	73			7
8	65	57	61	-2		4	0		0	.07	0					20	W	5.5	48			8
9	67	56	62	-1		3	0		0	0	0					22	W	11.5	100			9
10	68	57	63	1		2	0		0	.13	0					21	NE	6.3	55			10
11	74	60	67	5		0	2		0	0	0					28	NW	11.4	100			11
12	74	53	64	2		1	0		0	0	0					14	W	11.4	100			12
13	62	54	58	-4		7	0		0	0	0					17	SW	0.1	1			13
14	61	56	59	-3		6	0		0	.07	0					13	SE	0.0	0			14
15	63	54	59	-3		6	0		0	2.29	0					17	SW	0.0	0			15
16	65	56	61	-1		4	0		0	.05	0					14	W	4.1	36			16
17	60	54	57	-5		8	0		0	0	0					21	W	11.1	100			17
18	62	52	57	-4		8	0		0	0	0					16	W	11.0	99			18
19	69	52	61	0		4	0		0	0	0					14	W	11.0	99			19
20	71	52	62	1		3	0		0	0	0					12	W	11.1	100			20
21	74	54	64	3		1	0		0	0	0					21	W	11.0	100			21
22	61	54	58	-3		7	0		0	0	0					15	W	0.1	1			22
(23)	61	56	59	-2		6	0		0	0	0					13	W	0.0	0			(23)
24	62	54	58	-3		7	0		0	0	0					14	W	2.1	19			24
25	67	52*	60	-1		5	0		0	0	0					15	W	8.6	79			25
26	60	55	58	-3		7	0		0	0	0					14	W	0.0	0			26
27	62	56	59	-1		6	0		0	0	0					17	W	4.3	40			27
28	68	54	61	1		4	0		0	0	0					17	W	10.7	100			28
29	77	54	66	6		0	1		0	0	0					12	W	10.7	100			29
30	77	58	68	8		0	3		0	0	0					13	W	10.7	100			30
31	79*	58	69	9		0	4		0	0	0					10	N	10.6	100			31
	Sum	Sum				Total	Total			Total	Total	For the month:						Total	%	Sum	Sum	
	2110	1718				107	20			2.61	0					28	NW	241.9	for			
	Avg.	Avg.	Avg.	Dep.	Avg.	Dep.	Dep.			Dep.						Date: 11		Possible	month	Avg.	Avg.	
	68.3	55.4	61.9	0.5		-11				1.72								347.5	70			

Number of days				Season to date	
Maximum Temp.		Minimum Temp.		Total	Total
≥ 32°	≤ 90° ‡	≤ 32°	≤ 0°	691	41
0	0	0	0	Dep. 43	Dep.

Number of days	
Precipitation ≥ .01 inch	5
Snow, sleet ≥ 1.0 inch	0
Thunderstorms	
Heavy fog	X

Greatest in 24 hours and dates		Greatest depth on ground of snow, sleet or ice and date
Precipitation	Snow, Sleet	
2.35	14-15	0

DATA ARE NOT ENTERED IN THIS COLUMN BECAUSE RECORDS OF WEATHER TYPES MAY BE INCOMPLETE

HOURLY PRECIPITATION (Water equivalent in inches)—TRACE AMOUNT ENTRIES MAY BE INCOMPLETE

Date	A.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	P.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	Date
1																									1
2																									2
3																									3
4																									4
5																									5
6																									6
7																									7
8					.03	.03	.01																		8
9																									9
10			.02	.04	.01	.03	.02	.01	T																10
11																									11
12																									12
13																									13
14									T	T	T			T	T	T									14
15	.02	.05	.05	.04	.08	.07	.27	.24	.35	.47	.05	.01	.02	.16	.14	.25				.01	.04	.01	.02	.03	15
16																									16
17																									17
18																									18
19																									19
20																									20
21																									21
(23)																									(23)
24																									24
25																									25
26																									26
27																									27
28																									28
29																									29
30																									30
31																									31

* Extreme temperatures for the month. May be the last of more than one occurrence.
– Below zero temperature or negative departure from normal.
‡ ≥ 70° at Alaskan stations.
+ Also on an earlier date, or dates.
X Heavy fog restricts visibility to ¼ mile or less.
T In the Hourly Precipitation table and in columns 9, 10, and 11 indicates an amount too small to measure.

The season for degree days begins with July for heating and with January for cooling.
Data in columns 6, 12, 13, 14, and 15 are based on 8 observations per day at 3-hour intervals.
Wind directions are those from which the wind blows. Resultant wind is the vector sum of wind directions and speeds divided by the number of observations. Figures for directions are tens of degrees from true North; i.e., 09 = East, 18 = South, 27 = West, 36 = North, and 00 = Calm. When directions are in tens of degrees in Col. 17, entries in Col. 16 are fastest observed 1-minute speeds. If the / appears in Col. 17, speeds are gusts.

Any errors detected will be corrected and changes in summary data will be annotated in the annual summary.

Subscription Price: Local Climatological Data $1.00 per year including annual Summary if published. Single copy: 10 cents for monthly Summary; 15 cents for annual Summary. Checks or money orders should be made payable and remittances and correspondence should be sent to the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

I certify that this is an official publication of the Environmental Science Services Administration, and is compiled from records on file at the National Weather Records Center, Asheville, North Carolina 28801.

William S. Haggard
Director, National Weather Records Center

SUMMARY BY HOURS

Hour (Local time)	AVERAGES Sky cover (In tenths)	Station pressure (In.)	Dry bulb (°F)	Wet bulb (°F)	Rel. hum. (%)	Dew point (°F)	Wind speed (m.p.h.)	Resultant wind Direction	Resultant wind Speed (m.p.h.)

USCOMM—ESSA—ASHEVILLE 300

LOCAL CLIMATOLOGICAL DATA

U.S. DEPARTMENT OF COMMERCE
MAURICE H. STANS, Secretary
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

SAN FRANCISCO, CALIFORNIA
INTERNATIONAL AIRPORT
NOVEMBER 1969

Latitude 37° 37′ N Longitude 122° 23′ W Elevation (ground) 8 ft. Standard time used: PACIFIC

Date	Temperature (°F) Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days (Base 65°) Heating	Cooling	Weather types shown by code 1-9 on dates of occurrence (Fog, Heavy Fog, Thunderstorm, Sleet, Hail, Glaze, Duststorm, Smoke, Haze, Blowing Snow)	Snow, Sleet, or Ice on ground at 04AM (In.)	Precipitation Water equivalent (In.)	Snow, sleet (In.)	Avg. station pressure (In.) Elev. 18 feet m.s.l.	Wind Resultant direction	Resultant speed (m.p.h.)	Average speed (m.p.h.)	Fastest mile Speed (m.p.h.)	Fastest mile Direction	Sunshine Hours and tenths	Sunshine Percent of possible	Sky cover (Tenths) Sunrise to sunset	Sky cover (Tenths) Midnight to midnight	Date
	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	77*	51	64	6	49	1	0	8	0	0	0	29.95	33	3.7	5.6	18	29			0	0	1
2	68	53	61	3	51	7	0	1 8	0	0	0	29.97	29	11.6	13.1	26	29			0	1	2
3	66	49	58	1	51	7	0	2 8	0	0	0	29.97	30	6.3	9.9	22	30			4	4	3
4	65	49	57	0	52	8	0	8	0	0	0	29.95	36	1.7	7.3	22	18			7	7	4
5	60	51	56	-1	52	9	0	1	0	.61	0	29.80	15	8.8	10.5	25	29			10	10	5
6	60	49	55	-2	48	10	0		0	.03	0	29.87	22	4.3	7.2	15	29			5	4	6
7	61	50	56	0	48	9	0		0	.05	0	29.88	14	11.9	12.2	20	18			10	10	7
8	66	53	60	4	47	5	0		0	0	0	29.79	10	9.4	12.2	22	04			8	7	8
9	70	46	58	2	44	7	0		0	0	0	29.88	30	2.5	6.8	17	30			0	0	9
10	71	45	58	2	45	7	0		0	0	0	29.91	28	2.4	6.5	12	29			0	1	10
11	71	47	59	3	48	6	0	8	0	0	0	30.01	15	1.3	5.3	8	08			0	0	11
12	72	50	61	6	49	4	0	8	0	0	0	30.12	12	.9	4.6	9	30			0	0	12
13	73	50	62	7	49	3	0	1 8	0	0	0	30.14	24	1.0	4.3	7	30			2	3	13
14	65	55	60	5	54	5	0	1 8	0	0	0	30.04	28	5.4	7.5	17	30			7	5	14
15	62	56	59	4	53	6	0	1 8	0	T	0	29.89	28	10.2	10.5	20	28			9	10	15
16	61	49	55	0	45	10	0		0	T	0	30.03	28	13.8	14.0	28	28			1	2	16
17	62	40	51	-4	36	14	0		0	0	0	30.34	33	3.3	7.5	14	29			0	0	17
18	61	45	53	-2	34	12	0		0	0	0	30.43	09	5.0	7.9	12	08			7	4	18
19	64	40	52	-2	39	13	0	8	0	0	0	30.36	13	4.0	5.6	12	07			10	6	19
20	65	40	53	-1	39	12	0	8	0	0	0	30.17	17	2.1	5.3	10	29			6	4	20
21	62	43	53	-1	45	12	0	8	0	0	0	30.06	30	5.2	9.8	21	26			1	2	21
22	65	45	55	1	47	10	0	2 8	0	0	0	30.10	28	2.0	5.9	14	30			7	4	22
23	64	43	54	0	44	11	0	2 8	0	0	0	30.19	10	1.3	4.9	10	36			0	0	23
24	65	42	54	0	42	11	0	1 8	0	0	0	30.24	17	4.1	4.8	9	16			8	6	24
25	68	45	57	3	44	8	0	1 8	0	0	0	30.21	13	2.1	4.2	10	29			7	6	25
26	66	43	55	1	42	10	0	1 8	0	0	0	30.14	13	2.0	4.0	8	11			2	2	26
27	68	42	55	2	40	10	0	1 8	0	0	0	30.13	14	2.7	5.0	8	03			0	0	27
28	67	42	55	2	39	10	0	1 8	0	0	0	30.15	15	1.3	5.8	10	29			0	0	28
29	64	40	52	-1	39	13	0	1 8	0	0	0	30.10	16	1.5	4.2	8	29			4	2	29
30	62	39*	51	-1	39	14	0	1 8	0	0	0	30.14	17	3.2	4.9	8	13			1	1	30
	Sum 1971	Sum 1392				Total 261	Total 0			Total .69	Total 0	For the month: 30.07	23	1.0	7.2	28	28	Total	% for	Sum 117	Sum 101	
	Avg. 65.7	Avg. 46.4	Avg. 56.1	Dep. 1.3	Avg. 45	Dep. -65	Dep.			Dep. -0.88						Date	16	Possible	month	Avg. 3.9	Avg. 3.4	

Number of days				Season to date	
Maximum Temp.		Minimum Temp.		Total	Total
≤ 32°	≥ 90°	≤ 32°	≤ 0°	584	57
0	0	6	0	Dep. -84	Dep.

Number of days Precipitation ≥ .01 inch	3
Snow, sleet ≥ 1.0 inch	0
Thunderstorms	0
Heavy fog X	3

Greatest in 24 hours and dates		Greatest depth on ground of snow, sleet or ice and date
Precipitation	Snow, Sleet	
.64	5- 6	0

HOURLY PRECIPITATION (Water equivalent in inches)

Date	A.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	P.M. Hour ending at 1	2	3	4	5	6	7	8	9	10	11	12	Date
1																									1
2																									2
3																								T	3
4		T	T	.01	.18	.19	.11	.05	.04	T	T	T	.01	.02	T										4
5		T		T	T								T												5
6	.03																								6
7	T	.01	.01		.02	T	.01																		7
8																									8
9																									9
10																									10
11																									11
12																									12
13																									13
14																	T	T	T	T	T	T	T	T	14
15																									15
16	T																								16
17																									17
18																									18
19																									19
20																									20
21																									21
22																									22
23																									23
24																									24
25																									25
26																									26
27																									27
28																									28
29																									29
30																									30

* Extreme temperatures for the month. May be the last of more than one occurrence.
– Below zero temperature or negative departure from normal.
‡ ≥ 70° at Alaskan stations.
+ Also on an earlier date, or dates.
X Heavy fog restricts visibility to ¼ mile or less.
T In the Hourly Precipitation table and in columns 9, 10, and 11 indicates an amount too small to measure.

The season for degree days begins with July for heating and with January for cooling.
Data in columns 6, 12, 13, 14, and 15 are based on 8 observations per day at 3-hour intervals.
Wind directions are those from which the wind blows. Resultant wind is the vector sum of wind directions and speeds divided by the number of observations. Figures for directions are tens of degrees from true North, i.e., 09 = East, 18 = South, 27 = West, 36 = North, and 00 = Calm. When directions are in tens of degrees in Col. 17, entries in Col. 16 are fastest observed 1-minute speeds. If the / appears in Col. 17, speeds are gusts.

Any errors detected will be corrected and changes in summary data will be annotated in the annual summary.

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I certify that this is an official publication of the Environmental Science Services Administration, and is compiled from records on file at the National Weather Records Center, Asheville, North Carolina 28801.

William H. Haggard
Director, National Weather Records Center

SUMMARY BY HOURS

Hour (Local time)	AVERAGES Sky cover (In tenths)	Station pressure (In.)	Dry bulb (°F)	Wet bulb (°F)	Rel. hum. %	Dew point (°F)	Wind speed (m.p.h.)	Resultant wind Direction	Resultant wind Speed (m.p.h.)
01	3	30.06	51	48	80	45	6.9	24	2.5
04	3	30.06	48	46	84	44	6.3	20	3.2
07	4	30.08	48	46	86	44	6.1	19	2.8
10	4	30.11	57	52	71	47	6.7	09	4.1
13	4	30.06	63	53	54	45	7.4	02	2.2
16	4	30.03	64	54	53	45	8.7	30	3.6
19	3	30.05	56	51	69	46	8.6	27	2.9
22	2	30.07	54	49	73	45	7.2	21	2.4

USCOMM—ESSA—ASHEVILLE 403

OBSERVATIONS AT 3-HOUR INTERVALS

Day	Hour	Sky cover (tenths)	Ceiling (hunds. of ft.)	Visibility whole miles	Visibility 16ths	Weather	Dry bulb °F	Wet bulb °F	Rel. hum. %	Dew pt. °F	Wind dir.	Wind speed (knots)
01	01	0	UNL	7			58	50	64	46	34	3
01	04	0	UNL	7			53	49	76	45	26	3
01	07	0	UNL	6		KH	54	51	80	48	00	0
01	10	0	UNL	2		KH	64	58	70	54	26	5
01	13	0	UNL	2		KH	71	61	53	53	03	6
01	16	0	UNL	6		KH	77	60	33	46	35	4
01	19	0	UNL	12			64	56	61	50	29	12
01	22	0	UNL	12			60	53	70	50	30	4
02	01	0	UNL	8			53	53	86	51	30	4
02	04	0	UNL	7			53	50	80	47	27	3
02	07	1	UNL	0	12	GF	53	52	93	51	28	7
02	10	0	UNL	3		KH	56	58	68	53	05	3
02	13	0	UNL	4		KH	58	57	70	53	29	19
02	16	1	UNL	7			60	55	72	51	29	19
02	19	0	UNL	12			55	53	86	51	29	19
02	22	4	UNL	7			55	52	90	51	30	17
03	01	8	[illegible]	0		F	52	54	92	51	30	8
03	04	2	UNL	6		F	50	48	90	49	30	7
03	07	10	3	0	10	F	50	49	96	49	21	8
03	10	10	4	1	4	F	56	54	95	52	11	8
03	13	0	UNL	4	8	KH	61	58	70	53	09	6
03	16	0	UNL	3		KH	58	58	78	54	30	16
03	19	0	UNL	7			53	58	86	51	29	9
03	22	0	UNL	5		[illegible]	58	54	85	50	29	10
04	01	1	UNL	4		GF	52	51	93	50	31	13
04	04	8	4	4		F	51	49	90	48	00	0
04	07	10	3	0	10	F	52	51	96	51	28	7
04	10	10	3	2	8	FK	57	55	87	53	12	5
04	13	6	UNL	4		KH	63	58	73	54	34	7
04	16	6	UNL	7			62	58	78	55	04	7
04	19	8	100	10			58	55	84	53	12	3
04	22	9	100	12			59	56	81	53	13	4
05	01	8	CIR	15			62	58	78	53	19	10
05	04	10	10	3		GF	58	56	87	54	18	6
05	07	10	6	3		GF	54	52	90	51	20	7
05	10	10	32	10		F	54	52	90	51	12	6
05	13	10	17	10		F	56	53	83	51	28	7
05	16	10	17	12			56	54	87	52	12	6
05	19	10	CIR	15			54	52	90	51	18	6
05	22	8	23	15			53	51	86	49	13	7
06	01	10	50	14		R	52	49	88	47	20	6
06	04	10	39	14		R	54	52	90	50	21	6
06	07	9	UNL	10			48	48	93	47	22	9
06	10	1	UNL	10			57	54	83	51	10	9
06	13	8	29	20			58	50	70	48	31	6
06	16	6	42	23			60	52	74	47	29	11
06	19	6	UNL	15			58	51	77	48	20	6
06	22	1	UNL	15			50	47	89	45	16	4
07	01	10	32	15			51	49	90	48	18	5
07	04	10	35	15			50	49	93	48	16	6
07	07	10	28	12			51	49	90	48	15	6
07	10	10	CIR	20			57	53	78	50	14	14
07	13	10	45	25			60	54	67	49	16	13
07	16	10	32	30			60	53	62	47	15	10
07	19	10	35	15			58	52	67	47	13	15
07	22	10	35	15			58	52	65	46	13	10
08	01	10	34	15			56	51	74	47	20	15
08	04	10	30	15			55	51	75	47	16	15
08	07	10	100	50			53	50	88	48	13	10
08	10	10	CIR	50			59	52	62	46	12	9
08	13	8	CIR	50			63	55	56	46	10	9
08	16	7	UNL	50			63	56	56	48	12	9
08	19	2	UNL	15			58	54	70	48	01	12
08	22	2	UNL	15			58	53	70	48	30	9
09	01	0	UNL	15			52	48	76	44	22	8
09	04	0	UNL	15			51	47	77	44	16	8
09	07	0	UNL	10			48	46	83	43	20	6
09	10	0	UNL	50			60	56	62	47	24	7
09	13	0	UNL	50			67	58	57	45	26	8
09	16	0	UNL	50			64	55	56	48	29	13
09	19	0	UNL	15			58	53	67	48	30	10
09	22	0	UNL	15			54	48	62	41	30	8
10	01	0	UNL	13			56	50	77	47	30	4
10	04	0	UNL	15			47	45	83	42	18	4
10	07	1	UNL	25			46	44	83	41	17	5
10	10	0	UNL	7			61	56	65	49	16	5
10	13	0	UNL	20			70	56	31	38	24	5
10	16	2	UNL	10			68	56	44	45	30	7
10	19	1	UNL	13			61	56	60	47	29	7
10	22	0	UNL	12			55	51	75	47	29	8
11	01	0	UNL	12			52	48	76	44	30	4
11	04	0	UNL	8			52	48	85	48	16	5
11	07	0	UNL	10			49	48	93	47	18	5
11	10	0	UNL	4		KH	60	55	72	51	11	4
11	13	0	UNL	7			68	56	45	46	04	5
11	16	0	UNL	7			69	57	47	48	32	5
11	19	0	UNL	7			58	54	70	49	16	4
11	22	0	UNL	7			60	54	67	49	19	4
12	01	0	UNL	6		KH	58	53	81	51	30	6
12	04	0	UNL	5		KH	56	50	80	49	12	6
12	07	0	UNL	4	8	KH	56	54	88	52	19	6
12	10	1	UNL	4		KH	61	58	75	55	28	6
12	13	0	UNL	8		KH	68	57	48	47	16	8
12	16	0	UNL	4		KH	70	56	49	50	16	8
12	19	0	UNL	6		KH	66	55	56	48	30	8
12	22	0	UNL	6		KH	58	52	65	47	30	8
13	01	0	UNL	6		KH	56	50	75	46	31	3
13	04	0	UNL	4		KH	53	51	90	50	25	4
13	07	3	UNL	1	12	GF	51	49	93	48	23	6
13	10	1	UNL	2	8	KH	61	55	67	50	04	4
13	13	1	UNL	6		KH	70	59	49	50	19	5
13	16	5	UNL	6		KH	72	60	46	50	37	4
13	19	10	110	10			66	57	56	49	00	0
13	22	1	UNL	6		K	61	55	70	51	26	4
14	01	0	UNL	5		KH	59	57	87	55	00	0
14	04	0	UNL	4		KH	55	53	86	51	20	6
14	07	0	UNL	2		GF	55	54	93	53	20	3
14	10	9	8	2	4	KH	62	58	81	56	11	4
14	13	3	UNL	7			64	60	81	58	30	11
14	16	9	8	9			61	58	84	56	28	13
14	19	6	90	12			58	54	90	53	29	9
14	22	8	90	13			56	53	83	51	22	8
15	01	10	32	14			57	54	83	52	22	4
15	04	10	38	14			58	55	84	52	27	7
15	07	10	49	10			58	55	84	53	28	8
15	10	9	15	10			59	56	81	53	27	11
15	13	10	16	12			60	55	73	51	29	14
15	16	10	19	7			58	55	84	52	27	9
15	19	10	6	2		LF	57	53	85	54	28	8
15	22	10	11	13		L	57	53	87	53	29	14
16	01	8	22	15			57	54	83	52	28	14
16	04	10	15	15			56	53	80	50	28	14
16	07	5	UNL	12			53	49	77	46	28	15
16	10	0	UNL	20			57	51	67	46	30	8
16	13	0	UNL	25			60	51	54	43	28	11
16	16	0	UNL	25			59	51	56	43	29	18
16	19	0	UNL	15			54	48	64	42	28	10
16	22	0	UNL	15			52	47	66	41	27	7
17	01	0	UNL	13			48	44	71	39	22	8
17	04	0	UNL	13			43	40	79	37	30	8
17	07	0	UNL	30			45	42	80	39	39	8
17	10	0	UNL	30			56	48	51	38	38	7
17	13	0	UNL	30			59	47	38	32	32	7
17	16	0	UNL	30			62	47	28	28	38	8
17	19	0	UNL	15			56	48	64	42	29	8
17	22	0	UNL	13			49	42	56	34	17	7
18	01	2	UNL	15			47	41	56	32	14	7
18	04	0	UNL	15			45	40	65	34	15	8
18	07	0	UNL	30			44	39	50	28	13	6
18	10	0	UNL	30			55	44	48	31	24	7
18	13	4	UNL	20			58	47	56	32	23	8
18	16	8	UNL	15			62	49	43	37	30	8
18	19	7	UNL	13			56	48	58	39	26	10
18	22	0	UNL	10			53	48	88	42	16	4
19	01	0	UNL	10			43	41	76	37	17	5
19	04	4	UNL	10			42	39	79	36	17	4
19	07	3	UNL	10			42	40	83	37	14	4
19	10	10	UNL	3		KH	54	47	59	40	13	6
19	13	10	UNL	6		KH	60	50	48	40	09	5
19	16	10	UNL	6		KH	63	51	41	39	01	5
19	19	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	22	0	UNL	12			50	45	69	40	16	5
20	01	0	UNL	9			46	42	71	37	17	4
20	04	2	UNL	9			43	40	79	37	19	5
20	07	0	UNL	8			42	40	83	37	18	6
20	10	0	UNL	5		KH	57	48	51	39	11	6
20	13	10	UNL	7			64	50	33	34	02	3
20	16	10	UNL	9			63	51	40	38	00	0
20	19	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	22	3	UNL	12			51	47	71	42	18	3
21	01	2	UNL	8			48	43	77	39	20	8
21	04	6	UNL	10			46	42	86	40	18	3
21	07	10	CIR	7			45	44	88	42	15	8
21	10	0	UNL	4	8	KH	56	50	73	46	25	8
21	13	0	UNL	6		KH	61	52	56	44	31	8
21	16	0	UNL	8			58	54	73	50	29	16
21	19	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	22	0	UNL	6			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	01	0	UNL	10			49	48	93	47	18	4
22	04	0	UNL	7			46	45	93	44	31	3
22	07	10	1	0	1	F	45	45	100	45	19	0
22	10	10	2	0	2	F	48	48	100	48	00	0
22	13	9	UNL	0	12	GFK	53	51	90	50	05	4
22	16	3	UNL	5		KH	63	55	58	48	30	11
22	19	3	UNL	8			55	51	77	48	29	10
22	22	2	UNL	10			50	47	77	43	18	3
23	01	0	UNL	8			47	43	83	42	30	8
23	04	0	UNL	4		GF	46	43	89	43	21	5
23	07	2	UNL	1	12	GFK	44	43	96	43	19	5
23	10	1	UNL	3		KH	53	50	83	48	04	4
23	13	0	UNL	3		KH	60	52	56	44	05	4
23	16	0	UNL	3		KH	63	54	52	45	06	5
23	19	0	UNL	3		KH	53	48	72	44	16	4
23	22	0	UNL	3		KH	50	46	76	42	18	5
24	01	0	UNL	4		KH	44	42	86	40	19	8
24	04	1	UNL	3		KH	43	41	83	38	19	3
24	07	1	UNL	4		GFK	42	40	88	38	16	4
24	10	8	UNL	4		GFK	56	49	60	44	12	3
24	13	10	UNL	4		KH	63	52	60	42	16	5
24	16	10	UNL	4		KH	66	54	48	46	00	0
24	19	8	UNL	8			58	50	64	44	13	3
24	22	0	UNL	7			53	48	69	43	20	3
25	01	10	UNL	7			47	45	83	42	16	5
25	04	9	UNL	6		KH	45	44	89	42	02	3
25	07	10	UNL	4		GFK	46	45	96	45	00	0
25	10	10	UNL	2		GFK	56	52	86	50	09	5
25	13	8	UNL	3		KH	65	55	52	47	06	3
25	16	2	UNL	6		KH	68	54	36	40	00	0
25	19	3	UNL	8			55	48	59	41	20	5
25	22	2	UNL	8			51	46	69	41	16	6
26	01	2	UNL	7			50	47	83	43	36	4
26	04	2	UNL	8		GFK	45	44	89	42	00	0
26	07	0	UNL	3		GFK	44	43	89	41	17	3
26	10	2	UNL	4		KH	58	48	60	42	11	4
26	13	2	UNL	3		KH	64	52	43	41	17	3
26	16	2	UNL	5		KH	66	54	42	42	16	3
26	19	1	UNL	7			55	49	56	43	19	4
26	22	1	UNL	7			50	46	71	41	35	3
27	01	0	UNL	8		GFK	47	43	83	42	12	3
27	04	0	UNL	6		KH	43	40	79	37	19	3
27	07	0	UNL	4		GFK	43	41	83	38	20	3
27	10	0	UNL	3		KH	57	49	57	42	08	4
27	13	0	UNL	5		KH	63	54	52	45	09	7
27	16	0	UNL	7			67	51	31	35	18	3
27	19	0	UNL	10			52	43	59	38	16	3
27	22	0	UNL	8			51	43	64	39	19	3
28	01	0	UNL	7			51	47	76	43	31	3
28	04	0	UNL	6		KH	43	42	89	40	17	3
28	07	0	UNL	4		KH	46	43	89	41	23	3
28	10	0	UNL	4		KH	56	49	60	42	13	8
28	13	0	UNL	6		KH	65	51	36	37	07	4
28	16	0	UNL	8			66	50	28	32	03	4
28	19	0	UNL	9			52	45	57	37	13	7
28	22	0	UNL	7			50	44	81	37	29	8
29	01	1	UNL	2	8	GF	44	41	80	38	21	4
29	04	0	UNL	6		GFK	41	38	79	35	22	4
29	07	0	UNL	2	8	GFK	41	40	89	38	19	3
29	10	3	UNL	4		KH	54	48	67	43	20	3
29	13	2	UNL	3		KH	61	53	43	38	04	3
29	16	8	UNL	5		KH	63	51	43	40	12	3
29	19	2	UNL	8			53	48	66	42	13	8
29	22	0	UNL	3		KH	51	48	89	41	35	3
30	01	0	UNL	3		KH	45	43	88	40	19	4
30	04	0	UNL	3		KH	41	40	89	38	20	3
30	07	0	UNL	3		KH	42	38	78	36	23	3
30	10	1	UNL	2		KH	53	47	64	41	11	3
30	13	1	UNL	2	8	KH	58	49	48	38	08	4
30	16	2	UNL	3		KH	60	54	62	42	14	3
30	19	3	UNL	4		KH	52	46	84	40	18	4
30	22	0	UNL	3		KH	48	44	71	38	15	4

NOTES

CEILING COLUMN -

UNL indicates an unlimited ceiling.
CIR indicates a cirriform cloud ceiling of unknown height.

WEATHER COLUMN -

- T Tornado
- T Thunderstorm
- Q Squall
- R Rain
- RW Rain showers
- ZR Freezing rain
- L Drizzle
- ZL Freezing drizzle
- S Snow
- SP Snow pellets
- IC Ice crystals
- SW Snow showers
- SG Snow grains
- E Sleet
- A Hail
- AP Small hail
- F Fog
- IF Ice fog
- GF Ground fog
- BD Blowing dust
- BN Blowing sand
- BS Blowing snow
- BY Blowing spray
- K Smoke
- H Haze
- D Dust

WIND COLUMNS -

Directions are those from which the wind blows, indicated in tens of degrees from true North; i.e., 09 for East, 18 for South, 27 for West. Entry of 00 in the direction column indicates calm.

Speed is expressed in knots; multiply by 1.15 to convert to miles per hour.

ADDITIONAL DATA
Other observational data contained in records on file can be furnished at cost via microfilm or microfiche copies of the original records. Inquiries as to availability and costs should be addressed to: Director, National Weather Records Center, Federal Building, Asheville, N. C. 28801

STATION: SAN FRANCISCO CALIF   YEAR & MONTH: 69 11

SAN FRANCISCO

I. Identification of Odorant Sources

No.	Name	Location
A	Rendering Plants: Royal Tallor & Pacific	On Davidson Ave. in Hunter's Point
B	Feedstuffs Processing	At 25th and Wisconsin Sts.
C	Southeast Sewage Treatment Plant	Phelps St. in Bayshore
D	Copra docks	At Islais Creek Channel

II. Socio-Economic Data on Public Opinion Survey Test and Control Areas

Sex	Test Area (%)	Control Area (%)
Male	39.0	49.4
Female	61.0	50.6

Age	Test Area (%)	Control Area (%)
18-24	5.6	1.9
25-34	16.9	13.8
35-44	25.4	18.1
45-54	25.4	21.3
55-64	16.4	18.8
65 +	10.2	24.4
Refused	-	1.9

Education	Test Area (%)	Control Area (%)
Under 8th Grade	25.4	35.0
Junior High	7.9	5.0
1-3 Years H.S.	20.3	10.6
H.S. Graduate	31.1	22.5
1-3 Years College	10.7	16.9
College Graduate	1.7	4.4
Post Graduate	-	1.9
Vocational	2.3	2.5
Refused	-	1.9

SAN FRANCISCO (Cont'd)

Family Size	Test Area (%)	Control Area (%)
1	11.9	31.3
2	19.2	31.9
3	28.2	11.9
4	9.6	8.1
5	11.3	5.6
6	6.2	5.0
7	6.2	1.9
8	2.8	1.9
9	1.1	-
10	2.8	0.6
More than 10	-	-
Refused	1.1	2.5

Annual Income	Test Area (%)	Control Area (%)
Under $5,000	35.6	39.4
$5,000 - $9,999	44.1	36.9
$10,000 - $14,999	11.3	8.1
$15,000 - $17,499	3.7	0.6
$17,500 - $19,999	-	-
$20,000 and over	-	1.3
Don't know/Refused	7.4	13.7

APPENDIX F

SENSORY EVALUATION OF ODORS DATA

APPENDIX F

SENSORY EVALUATION OF ODORS DATA

This appendix compiles the data developed in the course of the sensory evaluation of odors study. Table I contains the results of the triangle testing, and Table II presents the results of the odor intensity rating tests.

Tables III and IV summarize the characteristics of the raw data distributions (mean, standard deviation, coefficient of variation, and coefficient of skewness) for each panel member as recorded in the mercaptan and rendering calibration runs respectively.

Table V through IX summarize the characteristics of the raw data distribution for each panel member as recorded in the field sensory evaluations. Each field sensory evaluation is identified by date and type of odor. In cases where a panelist's data were incomplete, no data analyses were performed.

Table I

TRIANGLE TEST RESULTS

Panelist Code	Test Number							Total +	Percent +
	1	2	3	4	5	6	7		
1	+	-	-	+	+	-	+	4	57
2	+	-	+	-	+	+	+	5	71
3	+	-	-	-	+	+	-	3	43
4	+	-	+	+	+	+	+	6	86
5	+	-	-	-	+	+	-	3	43
6	+	-	-	-	+	+	+	4	57
7	+	+	+	-	+	+	+	6	86
8	+	-	-	-	+	-	+	3	43
9	+	-	+	+	+	+	+	6	86
10	+	-	+	+	+	+	+	6	86
11	+	-	+	+	+	+	+	6	86
12	+	+	+	+	+	-	+	6	86
13	+	-	+	-	+	+	+	5	71
14	+	+	+	-	+	+	+	6	86
15	+	-	+	-	+	+	+	5	71
16	+	-	-	-	+	+	+	4	57
17	+	-	-	-	+	+	+	4	57
18	+	-	+	-	+	+	+	5	71
19	+	-	-	+	+	+	+	5	71
20	+	+	-	+	+	+	-	5	71
Total +	20	4	11	8	20	17	17	97	
Percent +	100	20	55	40	100	85	85		69

+ right
- wrong
Results of Tests 2 through 7 used for statistical analysis.

Source: Engineering-Science, Inc.

Table II

ODOR INTENSITY RATING TEST RESULTS

Panelist Code	1		2		3		4		5		6		Totals	
	S	R	S	R	S	R	S	R	S	R	S	R	Right	Wrong
1	+	-	+	+	+	-	+	+	+	-	-	+	8	4
2	-	+	+	-	+	-	+	-	+	+	+	+	8	4
3	+	-	-	-	+	-	-	+	+	-	-	+	5	7
4	+	-	+	+	-	-	+	+	+	-	+	+	8	4
5	+	-	+	+	+	-	+	+	+	-	-	+	8	4
6	-	+	-	-	-	+	+	-	-	-	-	+	4	8
7	+	+	-	-	+	-	-	-	+	-	+	+	6	6
9	+	+	+	+	+	+	+	-	-	+	+	-	9	3
10	+	+	+	+	-	-	-	-	+	-	-	+	6	6
11	+	-	-	+	+	-	+	-	+	-	+	-	6	6
13	-	+	-	+	-	+	+	-	-	-	-	+	5	7
14	-	+	-	+	-	-	-	+	+	+	-	-	5	7
16	+	-	+	-	-	-	+	+	-	+	-	-	5	7
17	+	-	-	+	-	+	+	+	+	+	+	-	8	4
19	-	-	-	+	-	-	+	+	+	+	-	-	5	7
20	+	+	+	+	-	-	+	-	-	+	+	+	8	4
Totals +	11	8	8	11	7	4	12	8	11	7	7	10	104	88
Percent Right	69	50	50	69	44	25	75	50	69	44	44	63		

\+ right
\- wrong
S = Hexadecyl mercaptans or refinery quality reference standards
R = Linseed oil or rendering plant quality reference standards

Source: Engineering-Science, Inc.

Table III

FIELD CALIBRATION RUNS - DATA ANALYSIS

Date: October 20, 1969
Odor: Mercaptan

Characteristics of Data Distribution

Panel Member	Sample Mean	Standard Deviation	Coefficient Variation	Coefficient Skewness
1	2.86	0.872258	0.304985	2.23244
2	2.58	1.23895	0.480214	-9.03019
3	3.84	0.874643	0.227772	-9.31025
4	3.36	1.01571	0.302295	-6.14087
5	3.38	0.781025	0.231072	0.500242
6	0.92	1.02754	1.11689	-0.717745
7	1.38	0.633772	0.459255	-10.3238
8	3.08	1.35154	0.438812	-3.64503
9	0.54	0.538517	0.997253	-1.00829
10	2.88	0.361709	0.125593	-1.15951
11	3.96	0.431084	0.10886	1.9656
12	0.8	0.935414	1.16927	-0.625543
13	3.34	0.6245	0.186976	-9.8791
14	2.3	1.62019	0.704428	-2.86081
15	2.66	0.590198	0.221879	-1.99235E-02
16	1.44	1.76965	1.22892	-0.538796
17	Data Incomplete, No Analysis Performed			
18	Data Incomplete, No Analysis Performed			

Source: Engineering-Science, Inc.

Table IV

FIELD CALIBRATION RUNS - DATA ANALYSIS

Date: October 20, 1969
Odor: Rendering

Characteristics of Data Distribution

Panel Member	Sample Mean	Standard Deviation	Coefficient Variation	Coefficient Skewness
1	3.25676	1.5439	.474061	-3.12316
2	2.54054	0.767195	.301981	-2.49494
3	3.17568	0.859717	.27072	0.881508
4	2.75676	1.20544	.437266	-3.09529
5	2.48649	1.7098	.687638	-3.07554
6	2.82432	1.156	.409302	-0.362594
7	2.24324	1.06472	.474635	-1.19238E-02
8	2.74324	1.42703	.520198	-0.141285
9	1.12162	0.720777	.64262	0.144669
10	1.7973	0.506341	.281724	-16.8185
11	2.10811	0.898572	.426246	8.29544E-02
12	1.54054	0.923297	.599333	-0.20066
13	2.43243	1.13751	.467641	-1.99693
14	2.83784	1.5548	.547884	-1.65156
15	1.68919	1.35068	.7996	-1.95606
16	2.04054	1.72956	.847597	-1.64222
17	Data Incomplete, No Analysis Performed			
18	Data Incomplete, No Analysis Performed			

Source: Engineering-Science, Inc.

Table V

FIELD SENSORY EVALUATION - DATA ANALYSIS

Date: October 16, 1969
Odor: Mercaptan

Characteristics of Data Distribution

Panel Member	Sample Mean	Standard Deviation	Coefficient Variation	Coefficient Skewness
1	0.494048	1.00748	2.03925	-0.117921
2	Data Incomplete, No Analysis Performed			
3	2.64881	1.1714	0.442235	3.94678
4	1.67857	1.46986	0.875663	-1.79311E-03
5	0.559524	0.762071	1.362	-0.395795
6	1.3869	1.13369	0.817423	-3.97494E-02
7	Data Incomplete, No Analysis Performed			
8	Data Incomplete, No Analysis Performed			
9	Data Incomplete, No Analysis Performed			
10	2.9881	0.744361	0.249109	4.09077E-06
11	0.291667	0.357437	1.2255	-0.54333
12	0.303571	0.621007	2.04567	-0.116814
13	Data Incomplete, No Analysis Performed			
14	0.113095	0.272772	2.41188	-0.071274
15	Data Incomplete, No Analysis Performed			
16	Data Incomplete, No Analysis Performed			
17	Data Incomplete, No Analysis Performed			
18	0.85119	1.40305	1.64834	-0.223285

Source: Engineering-Science, Inc.

Table VI

FIELD SENSORY EVALUATION - DATA ANALYSIS

Date: October 16, 1969
Odor: Rendering

Characteristics of Data Distribution

Panel Member	Sample Mean	Standard Deviation	Coefficient Variation	Coefficient Skewness
1	Data Incomplete, No Analysis Performed			
2	1.64773	1.33634	0.811021	2.66294
3	2.21591	1.46826	0.662599	0.668927
4	1.93182	1.49647	0.774644	9.45799E-05
5	0.363636	0.574291	1.5793	-0.253868
6	0.897727	1.0652	1.18655	1.10809
7	1.59091	1.01313	0.636823	-0.198413
8	0.625	0.883472	1.41356	-0.354047
9	6.81818E-02	0.316061	4.63556	2.5503
10	3.56818	0.556054	0.155837	0.468328
11	2.43182	0.566414	0.232918	1.74424E-03
12	0.193182	0.361134	1.8694	11.1512
13	1.27273	0.718967	0.564903	-1.24152
14	1.63636	1.88125	1.14965	-0.65811
15	0.386365	0.548398	1.41938	-0.349705
16	0.284091	0.53263	1.87486	2.42827
17	1.04545	1.27962	1.22398	12.3093
18	0.931818	1.07612	1.15486	-0.649248

Source: Engineering-Science, Inc.

Table VII

FIELD SENSORY EVALUATION - DATA ANALYSIS

Date: October 17, 1969
Odor: Mercaptan

Characteristics of Data Distribution

Panel Member	Sample Mean	Standard Deviation	Coefficient Variation	Coefficient Skewness
1	Data Incomplete, No Analysis Performed			
2	8.33333E-02	0.270395	3.24473	-2.92727E-02
3	Data Incomplete, No Analysis Performed			
4	6.48148E-02	0.47629	7.34847	-2.52005E-03
5	1.2963	0.81564	0.629208	-4.79384E-02
6	Data Incomplete, No Analysis Performed			
7	0.740741	0.442343	0.597163	0.201338
8	1.85185E-02	0.136083	7.34847	-2.52005E-03
9	0	0	0	0
10	Data Incomplete, No Analysis Performed			
11	Data Incomplete, No Analysis Performed			
12	0	0	0	0
13	Data Incomplete, No Analysis Performed			
14	0.203704	0.849631	4.17092	-1.37818E-02
15	0	0	0	0
16	0	0	0	0
17	0.148148	0.33123	2.2358	-8.94743E-02
18	0.111111	0.492076	4.42868	-1.15127E-02

Source: Engineering-Science, Inc.

Table VIII

FIELD SENSORY EVALUATION - DATA ANALYSIS

Date: October 17, 1969
Odor: Rendering

Characteristics of Data Distribution

Panel Member	Sample Mean	Standard Deviation	Coefficient Variation	Coefficient Skewness
1	Data Incomplete, No Analysis Performed			
2	2.32407	0.795965	0.342487	0.61237
3	Data Incomplete, No Analysis Performed			
4	0.277778	0.563569	2.02885	-0.119743
5	Data Incomplete, No Analysis Performed			
6	Data Incomplete, No Analysis Performed			
7	0.592593	0.680414	1.1482	-0.660616
8	1.14815	0.861272	0.75014	0.967547
9	0.231481	0.372561	1.60946	-0.23986
10	Data Incomplete, No Analysis Performed			
11	Data Incomplete, No Analysis Performed			
12	0.388889	0.285939	0.735271	0.058675
13	1.52778	1.00196	0.655831	-0.146149
14	0.314815	0.458631	1.45683	-0.323427
15	0.388889	0.50157	1.28975	-0.466104
16	0.361111	0.544411	1.5076	-0.291837
17	0.462963	0.685785	1.48129	11.2587
18	0.12037	0.349328	2.90211	-4.09127E-02

Source: Engineering-Science, Inc.

Table IX

FIELD SENSORY EVALUATION - DATA ANALYSIS

Date: October 20, 1969
Odor: Mercaptan

Characteristics of Data Distribution

Panel Member	Sample Mean	Standard Deviation	Coefficient Variation	Coefficient Skewness
1	0.591463	1.08619	1.83644	-0.161462
2	0.335366	0.608859	1.81551	-0.167112
3	2.5122	0.849748	0.338249	0.189177
4	Data Incomplete, No Analysis Performed			
5	1	0.761739	0.761739	-2.26246
6	0.280488	0.503675	1.79571	-0.172699
7	1.64634	0.806944	0.490144	-0.513873
8	0.75	0.821208	1.09494	-0.76177
9	0.195122	0.331067	1.69672	-0.204724
10	0.743902	0.583962	0.784998	8.43454E-02
11	0.207317	0.303795	1.46536	-0.317806
12	4.26829E-02	0.140572	3.29341	-2.79938E-02
13	1.10976	0.933017	0.840741	-1.68273
14	2.02439	1.79144	0.884931	1.3412
15	0.219512	0.408985	1.86315	-0.154615
16	0.219512	0.577872	2.63253	-5.48128E-02
17	Data Incomplete, No Analysis Performed			
18	Data Incomplete, No Analysis Performed			

Source: Engineering-Science, Inc.

APPENDIX G

FINDINGS OF PUBLIC OPINION SURVEY OF RESIDENTS — SUMMARY OF TEST AND CONTROL GROUPS FOR ALL CITIES COMBINED

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GENERAL PUBLIC
TEST VS. CONTROL - FOR ALL CITIES

X^2 Ratings

* Significant to 5% level
** Significant to 1% level
*** Not significant at 5% level
\# Chi square test not applicable

		Test	Control	Total
Q1 **	"In general, how would you rate your area of the city as a place to live? Would you rate it...?"			
	Excellent	20.3%	28.1%	24.2%
	Good	38.7	34.9	36.8
	Fair	28.9	26.6	27.8
	Poor	7.4	6.5	6.9
	Very poor	3.9	3.1	3.5
	Don't know	0.7	0.7	0.7
	Bases:	1220	1219	2439
Q2A **	"Can you think of any disadvantages — things you don't like — about living in your area of the city?"			
	No	45.4%	53.7%	49.5%
	Yes	53.4	45.4	49.4
	Bases:	1220	1219	2439

		Test	Control	Total
Q2B **	"If 'Yes', what are they?"			
	Dirt/litter	16.1%	10.3%	13.3%
	Air pollution	15.8	1.8	9.4
	Street disrepair	14.1	21.8	17.7
	Deteriorated area	12.9	17.7	15.1
	Traffic	12.0	13.0	12.4
	Odors	6.4	2.0	4.4
	Transportation	6.1	8.7	7.3
	Crime	6.0	7.2	6.6
	Noise	5.1	8.5	6.6
	Undesirable people	4.9	6.9	5.8
	Juvenile delinquency	4.3	3.6	4.0
	Loud kids	3.5	3.8	3.6
	Poor shopping	3.5	2.3	3.0
	Bad zoning	3.1	4.3	3.6
	Sewage	2.1	5.8	3.8
	Schools	2.1	1.4	1.8
	Dogs	1.8	2.5	2.2
	Water pollution	1.7	1.1	1.4
	Freeway disruption	0.6	0.4	0.5
	High rents	0.5	0.9	0.7
	Other	6.0	11.2	8.4
	Bases:	652	554	1206

Q3	"Here are a few problems which different community areas are facing. How would you rate each of these for <u>your area of the city</u> today in terms of being serious, somewhat serious, or not serious?"			
A.	Crime			
***	Serious	18.3	14.1	16.2
	Somewhat serious	20.1	18.9	19.5
	Not serious	58.9	63.7	61.3
	Don't know	2.7	3.2	3.0
	Bases:	1220	1219	2439

		Test	Control	Total
Q3	(Cont'd)			
	B. Water pollution			
***	Serious	19.5%	11.3%	15.4%
	Somewhat serious	13.1	10.5	11.8
	Not serious	59.1	67.9	63.5
	Don't know	8.3	10.3	9.3
	C. Air pollution			
**	Serious	40.2	16.3	29.2
	Somewhat serious	25.0	19.9	22.5
	Not serious	31.0	60.6	45.8
	Don't know	2.0	3.1	2.5
	D. Deterioration of streets, parks, sewer-			
***	age, utilities, public buildings, etc.			
	Serious	18.9	14.8	16.9
	Somewhat serious	23.0	18.9	21.0
	Not serious	55.6	64.7	60.1
	Don't know	2.3	1.6	1.9
	E. Deterioration of shopping centers,			
***	stores, homes, industrial buildings, etc.			
	Serious	10.6	8.9	9.8
	Somewhat serious	17.0	14.4	15.7
	Not serious	70.2	5.3	72.7
	Don't know	2.3	1.3	1.8
	F. Racial tensions			
***	Serious	7.9	4.1	6.0
	Somewhat serious	10.0	7.1	8.6
	Not serious	80.2	85.6	82.9
	Don't know	2.0	3.0	2.5
	G. High taxes			
***	Serious	42.7	39.5	41.1
	Somewhat serious	19.6	18.2	18.9
	Not serious	31.1	31.4	31.3
	Don't know	6.5	10.7	8.6

		Test	Control	Total
Q3	(Cont'd)			
	H. Inadequate public transportation			
***	Serious	15.5%	18.8%	17.1%
	Somewhat serious	14.6	12.9	13.7
	Not serious	63.4	62.2	62.8
	Don't know	6.6	5.9	6.2
	Bases:	1220	1219	2439
Q4A *	"Have you ever requested some authority or agency to take action concerning any problem in your area of the city?"			
	Yes	21.8	18.0	19.9
	No	78.0	81.9	79.9
	Bases:	1220	1219	2439
Q4B *	"If 'Yes', what was the problem?"			
	Juvenile delinquency/vandalism	14.3	11.0	12.8
	Street repair	13.5	12.3	13.0
	Air pollution	10.2	2.3	6.6
	Rats/mosquitos/snakes	9.4	9.1	9.3
	Traffic/speed	8.6	8.7	8.7
	Utilities	7.5	6.8	7.2
	Derelict buildings	5.3	8.7	6.4
	Theft	4.9	5.5	5.2
	Sewers	4.5	8.7	6.4
	Dogs	3.8	3.2	3.5
	Parking	3.4	3.2	3.3
	Taxes	3.0	2.3	2.7
	Poor transportation	2.3	3.2	2.7
	Fire	1.5	0.5	1.0
	Water pollution	1.5	0.9	1.2
	Noise	1.5	3.7	2.5
	Disrupting transportation routes	1.1	1.4	1.2
	Other	10.5	11.9	11.1
	Bases:	226	219	485

		Test	Control	Total
Q4C ***	"If 'Yes', to whom did you actually make the request?"			
	City Hall	32.0%	26.9%	29.7%
	Police	26.3	25.1	25.8
	Public Works	11.7	16.4	13.8
	Health Department	8.6	7.8	8.2
	Pollution Control Agency	3.0	1.8	2.5
	Fire Department	2.3	1.4	1.9
	Others	11.7	14.6	13.0
	Bases:	226	219	485
Q5 **	"How long have you lived in this area of the city?"			
	Less than 6 months	2.1	2.8	2.5
	6 months - 1 year	2.1	3.0	2.5
	1 - 2 years	4.8	6.8	5.8
	3 - 5 years	9.2	11.5	10.3
	6 - 10 years	19.3	20.8	20.0
	11 - 15 years	14.8	16.8	15.8
	16 - 20 years	12.1	12.1	12.1
	21 - 25 years	8.9	7.5	8.2
	26 - 30 years	6.7	3.9	5.3
	Over 30 years	17.1	12.6	14.8
	Bases:	1220	1219	2439
Q6A ***	"Have you thought seriously about moving to another area, or not?"			
	Yes	30.7	28.8	29.7
	No	69.0	70.9	69.9
	Bases:	1220	1219	2439

		Test	Control	Total
Q6B **	"If 'Yes', why is that?"			
	Get better/bigger house	18.4%	17.1%	17.8%
	Suburbs	16.3	10.5	13.5
	This area deteriorated	14.2	17.1	15.6
	Personal reasons	13.9	15.4	14.6
	"Pollution"	7.8	0.6	4.3
	Better school district	7.0	3.7	5.4
	New clean area	5.9	10.8	8.3
	Get smaller house/apartment	4.8	6.8	5.8
	Crime	4.8	2.8	3.9
	Racial	3.2	4.0	3.6
	Noise	3.2	3.7	3.4
	Cheaper area/less taxes	2.9	8.3	5.5
	Public transportation	2.9	2.3	2.6
	"Vague" - don't like it here, etc.	2.9	1.4	2.2
	Traffic	1.9	0.6	1.2
	Closer to city center	1.1	2.0	1.5
	Bases:	394	351	725
Q7A **	"Is there air pollution in your area of the city at any time during the year, or not?"			
	Yes	69.8	35.8	52.8
	No	29.0	63.2	46.1
	Don't know	1.1	1.0	1.1
	Bases:	1220	1219	2439

		Test	Control	Total
Q7B **	"If 'Yes', when do you notice it the most: at nighttime; during the week; on weekends; during some months of the year; or just when?"			
	Day	15.6	19.3	16.8
	Morning	15.5	20.6	17.2
	Afternoon	6.9	9.9	7.9
	Evening	18.8	8.9	15.5
	Weekdays	1.8	0.9	1.5
	Weekends	0.5	0.5	0.5
	Spring	0.9	1.6	1.2
	Summer	20.3	23.9	21.5
	Fall	3.5	8.9	5.4
	Winter	3.8	8.3	5.3
	Still air	0.6	1.1	0.8
	Breeze from _____	7.3	3.9	6.1
	"Weather"	9.0	6.2	8.1
	When plant does _____	0.5	0.5	0.5
	Occasional	3.3	8.5	5.0
	Not any more	0.5	0.2	0.4
	Don't know	2.1	4.6	3.0
	Most of the time	14.9	9.9	13.2
	Bases:	852	436	1288

		Test	Control	Total
Q8	"What do the words 'air pollution' mean to you? Please answer 'Yes' or 'No' to the following. Do they mean...?"			
	A. Smoke or dust			
***	Yes	84.3	81.8	83.0
	No	13.2	14.4	13.8
	Don't know	2.5	3.8	3.2
	B. Haze or fog			
**	Yes	58.2	50.1	54.2
	No	37.9	45.4	41.6
	Don't know	3.9	4.5	4.2
	C. Irritation of the eyes			
***	Yes	68.8	66.5	67.7
	No	27.5	28.8	28.2
	Don't know	3.7	4.7	4.2
	D. Nose or throat irritation			
***	Yes	64.8	65.9	65.4
	No	31.0	28.3	29.6
	Don't know	4.2	5.8	5.0
	E. Noticeable odors			
**	Yes	82.0	66.5	74.3
	No	15.6	29.5	22.5
	Don't know	2.5	4.0	3.2
	Bases:	1220	1219	2439

		Test	Control	Total
Q8F **	"Could you describe in your own words just what some of these 'odors' smell like?"			
	"Chemical"	19.1%	14.4%	17.0%
	Don't know/can't describe	15.8	14.9	15.4
	"Rotten"	13.4	3.6	9.0
	Eggs/sulphur	13.2	10.9	12.1
	Sewage	12.1	9.6	11.0
	Oil/petroleum	11.1	12.0	11.5
	"Burning"	7.5	12.3	9.7
	Burning hides/flesh	4.9	0.4	2.9
	Trash/garbage	3.7	7.6	5.5
	Fertilizer	3.4	1.5	2.5
	Exhaust	3.3	15.8	8.9
	Fishy	3.3	2.1	2.8
	Sweet/soapy	2.4	0.6	1.6
	Rubber	2.2	2.3	2.3
	Tar/asphalt	2.2	1.5	1.9
	"None here"	2.1	5.4	3.6
	Rotted vegetables	2.0	1.2	1.7
	Plastic	0.9	0.1	0.6
	"Metallic"	0.8	1.0	0.9
	Skunk	0.3	0.2	0.3
	"Medicinal"	0.1	0.6	0.3
	Vague	3.6	6.4	4.9
	Bases:	1000	811	1811

		Test	Control	Total
Q8G **	"If 'Yes', which one of these 'odors' do you smell most often in your area of the city?"			
	Rotten	12.8%	2.2%	8.1%
	Don't know	12.5	9.4	11.1
	"Chemical"	12.3	7.4	10.1
	"Eggs/sulphur"	8.3	5.1	6.8
	Oil/petroleum	7.1	5.4	6.4
	Sewage	6.8	5.5	6.2
	"Burning"	5.6	8.5	6.9
	Burning hides/flesh	5.5	0.5	3.3
	Exhaust	2.6	12.9	7.2
	None here	2.5	12.7	7.1
	Garbage/trash	2.4	6.0	4.0
	Rotten vegetables	1.8	1.0	1.4
	Fertilizer	1.7	0.2	1.0
	Tar/asphalt	1.6	0.7	1.2
	Fishy	1.5	0.9	1.2
	Sweet/soapy	1.3	0.1	0.8
	Rubber	1.2	0.7	1.0
	"Metallic"	0.7	1.0	0.8
	Skunk	0.4	0.2	0.3
	Plastic	0.3	--	0.2
	"Medicinal"	0.1	0.5	0.3
	Vague	2.8	4.9	3.5

		Test	Control	Total
Q9A **	"In your area of the city, does odor pollution bother you very much, some, or not at all?"			
	Very much	19.8%	3.6%	11.7%
	Some	46.1	30.3	38.2
	Not at all	33.3	64.2	48.7
	Don't know	0.7	1.8	1.3
	Bases:	1220	1219	2439
Q9B **	"If 'Very much' or 'Some', could you tell me where this/these odor(s) originate, that is, who or what causes them?"			
	Chemical plant	28.2	4.1	20.0
	Packing house	19.7	0.7	13.2
	"Factories"	13.3	10.2	12.2
	Steel company	12.6	0.2	8.4
	Oil refinery	9.0	1.5	6.4
	"Traffic"	6.7	29.8	14.5
	Swamp/river/bay	5.6	3.4	4.8
	Dump/incinerator	5.2	13.3	8.0
	Rendering plant	3.9	0.2	2.6
	Sewage	3.5	7.0	4.7
	Fertilizer plant	2.9	0.5	2.1
	Stockyards*	2.7	0.7	2.1
	Others	2.1	6.1	3.5
	Coal smoke/coke	1.9	0.2	1.3
	Plastics plant	1.4	0.5	1.1
	Crematorium	1.4	0.5	1.1
	Grain processing	1.0	0.2	0.7
	Distillery	1.0	--	0.7
	Paper mill	0.7	6.5	2.7
	Paint factory	0.6	--	0.4
	"Weather"	0.5	1.7	0.9
	Rubber plant	0.2	1.0	0.5
	Lumber mill	0.1	1.0	0.4
	*in Tampa=chicken farms			
	Bases:	804	413	1217

	Test	Control	Total
Q10 ** "Which of the following statements do you think best describes the general "ODOR"in your area of the city in recent years?"			
Not serious	26.2%	60.5%	43.3%
Becoming more serious	22.5	19.7	21.1
Becoming less serious	7.9	2.4	5.1
Continuously serious	19.9	4.6	12.3
Occasionally serious	23.1	11.9	17.5
Don't know	0.3	0.6	0.5
Bases:	1220	1219	2439

(Q11-Q15 are based on those answering everything but "Not Serious" in Q10)

	Test	Control	Total
Q11 * "Which one of the following statements do you think best describes the efforts that are being made to control odor pollution in your area?"			
No effort to control	19.2	20.3	19.6
Very little effort to control	16.7	19.7	17.7
Some effort to control	39.2	33.0	37.0
Great deal of effort to control	10.8	6.2	9.2
Don't know	13.7	19.5	15.7
Bases:	900	482	1382

Q12 ** "Do you feel that more money should be spent to control odor pollution in your area, or not?"			
Yes	73.9	59.3	68.8
No	13.3	23.2	16.8
Don't know	12.3	15.8	13.5
Bases:	900	482	1382

		Test	Control	Total
Q13 **	"When offensive odors from outside sources get into your home, what do you do, if anything, to reduce or eliminate them?"			
	Nothing	39.2	34.6	37.6
	Close house	24.3	20.1	22.9
	Spray	17.4	17.6	17.5
	Deodorizers	13.6	8.1	11.6
	Scrub/clean	9.1	3.9	7.3
	Air conditioner	3.0	5.0	3.7
	Burn a candle	1.2	2.5	1.7
	Open up the house	1.2	1.2	1.2
	Fans/ventilators	1.1	2.7	1.7
	No problem	8.7	10.0	9.1
	Bases:	900	482	1382
Q14A ***	"Do you own or are you purchasing this home (apartment or townhouse)?"			
	Yes	74.7	68.9	72.6
	No	24.0	27.2	25.1
	Don't know/no response	--	0.8	0.3
	Bases:	900	482	1382
Q14B *	"Do you feel that odor pollution has reduces the value of your home property in any way, or not?"			
	Yes	21.4	9.0	17.3
	No	65.0	80.4	70.1
	Don't know/no response	11.2	10.2	10.9
	Bases:	672	332	1004

		Test	Control	Total
Q14C *	"What do you feel some of these bad effects upon your property may be?"			
	Potential buyers not like smell	48.6%	36.7%	46.6%
	Ruins paint/leaves film	17.4	16.7	17.2
	Vague	11.1	26.7	13.8
	Can't use yard	4.9	3.3	4.6
	Don't go out/house run down	3.5	3.3	3.4
	Kills plants	0.7	--	0.6
	Others	--	3.3	0.6
	Don't know	6.3	6.7	6.3
	Bases:	144	30	174
Q15 *	*"Have you ever seriously considered* moving away from here because of odor pollution in the air?"			
	Yes	17.1	11.2	15.1
	No	82.1	87.1	83.9
	Don't know	0.8	1.7	1.1
	Bases:	900	482	1382
Q16A ***	"Are there any stores or shopping areas in your city where you would like to go shopping but do not do so because of odor pollution?"			
	Yes	1.9	2.6	2.3
	No	97.7	96.9	97.3
	Don't know	0.4	0.5	0.5
	Bases:	1220	1219	2439

	Test	Control	Total
Q16B * "If 'Yes', which stores or shopping areas are these?"			
Downtown	26.1%	34.4%	30.9%
Near river/bay	--	18.8	10.9
Sellwood P/Hunters P - S.F.	30.4	3.1	14.5
Furman - K.C.	4.3	--	1.8
Armourdale - K.C.	--	3.1	1.8
Swifton - Cin.	4.3	12.5	9.1
Hillcreek - Cin.	--	3.1	1.8
Tri-County - Cin.	--	3.1	1.8
Others	--	6.3	3.6
Bases:	23	32	55
Q17A *** "At the place where you work — if you're employed away from home — does odor pollution bother you very much, some, or not at all?"			
Very much	4.3	5.0	4.6
Some	10.3	10.3	10.3
Not at all	38.4	34.9	36.6
Don't know	0.8	0.7	0.7
Not employed	45.8	48.6	47.2
Bases:	1220	1219	2439

		Test	Control	Total
Q17B ***	"If 'Very much' or 'Some', how does it bother you — in what ways? Any other ways?"			
	Smells bad	58.4%	65.2%	61.9%
	Eye irritation	12.4	11.2	11.8
	Choking feeling	9.6	5.3	7.4
	Dust/dirt	9.0	9.6	9.3
	Sinus worse	6.2	8.0	7.1
	Throat irritation	4.5	2.1	3.3
	Headache	4.5	0.5	2.5
	Nose irritation	2.8	2.7	2.7
	Cough	0.6	2.7	1.6
	Others	5.6	4.2	5.0
	Bases:	178	187	365
Q18A **	"What kind of work are you now doing?"			
	Professional/Technical	4.7	7.2	5.9
	Managers/Self-Employed	4.4	6.0	5.2
	Clerical/Sales	12.0	12.3	12.2
	Skilled/Service	22.0	15.8	18.9
	Semi-Skilled/Operatives	9.1	8.3	8.7
	Laborers/Agricultural Workers	0.7	0.4	0.5
	Student	1.2	0.6	0.9
	Military	0.1	0.2	0.1
	Retired	9.6	12.6	11.1
	Housewife	27.4	31.5	29.4
	Unemployed	1.5	1.2	1.4
	Refused	1.3	0.7	1.0
	Based:	1220	1219	2439

		Test	Control	Total
Q18B ***	"In what kind of business or industry is this done?"			
	Professional (law, etc.)	1.3%	1.6%	1.5%
	Restaurant/Bars	1.1	1.5	1.3
	Medical	3.5	3.4	3.4
	Publishing	0.6	0.9	0.7
	Construction	3.4	4.6	4.0
	Banking/Insurance/Finance	2.0	1.6	1.8
	Communications	0.6	1.0	0.8
	Retail Sales	4.5	5.3	4.9
	Food Production	2.2	1.2	1.7
	Transportation	3.4	3.1	3.2
	Wholesale Sales	1.2	1.4	1.3
	Automotive	1.4	1.1	1.2
	Services (Laundry, Hair dressing, etc.)	4.4	5.6	5.0
	Agriculture	0.5	0.3	0.4
	Factory (Manufacturing)	6.3	5.3	5.8
	Heavy Industry	5.4	3.4	4.4
	Education	3.1	3.0	3.0
	Electronics	0.3	0.3	0.3
	Utilities	1.1	1.0	1.1
	Recreation	0.5	0.2	0.4
	Government	5.4	3.9	4.7
	Military	0.2	0.4	0.3
	Refused	0.2	1.0	0.6
	Bases:	1220	1219	2439
Q19 **	"Would you tell me approximately what age group you are in?"			
	18 - 24	5.7	3.2	4.5
	25 - 34	14.9	13.5	14.2
	35 - 44	18.7	19.4	19.1
	45 - 54	21.0	22.5	21.7
	55 - 64	21.1	18.8	19.9
	65 and over	17.9	21.4	19.6
	Refused	0.8	1.1	0.9
	Bases:	1220	1219	2439

		Test	Control	Total
Q20 **	"What is the highest grade of school you've completed?"			
	8th Grade or Less	20.2%	17.6%	18.9%
	Junior High	6.1	5.3	5.7
	1 - 3 Years H.S.	14.3	11.8	13.0
	H.S. Graduate	36.2	32.3	34.3
	1 - 3 Years College	11.2	13.0	12.1
	College Graduate	5.1	10.1	7.6
	Post Graduate	2.0	3.0	2.5
	Vocational	3.2	4.1	3.6
	Refused	1.3	2.6	2.0
	Bases:	1220	1219	2439
Q21 ***	"How many persons, including yourself, live in this household?"			
	1	10.1	12.2	11.2
	2	33.2	33.7	33.5
	3	18.8	16.7	17.2
	4	15.7	16.2	16.0
	5	9.4	9.3	9.3
	6	5.8	5.2	5.5
	7	2.7	2.1	2.4
	8	1.5	1.4	1.4
	9	0.7	0.2	0.4
	10	0.6	0.2	0.4
	11	0.1	0.2	0.1
	Refused	0.8	1.5	1.1
	Bases:	1220	1219	2439

		Test	Control	Total
Q22 **	"Considering your total yearly family income, what group would you say you're in?"			
	Under $5,000	25.1%	24.4%	24.8%
	$5,000 - $9,999	39.8	32.6	36.2
	$10,000 - $14,999	17.7	17.6	17.6
	$15,000 - $17,499	2.3	4.3	3.3
	$17,500 - $19,999	1.0	2.1	1.6
	$20,000 and over	2.5	4.5	3.5
	Don't know	4.0	4.7	4.3
	Refused	7.2	9.4	8.3
	Bases:	1220	1219	2439
Q23 ***	"Sex"			
	Male	47.7	46.6	47.2
	Female	51.8	53.3	52.6
	Bases:	1220	1219	2439

APPENDIX H

FINDINGS OF PUBLIC OPINION SURVEY OF RESIDENTS — SUMMARY, BY INCOME, OF TEST AND CONTROL GROUPS FOR ALL CITIES COMBINED

Q1 "In general, how would you rate your area of the city as a place to live? Would you rate it...?"

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Excellent	18.3%	22.1%	16.9%	17.3%	22.7%	32.7%	21.4%	55.8%
Good	34.6	31.2	37.4	38.2	41.7	35.5	32.1	28.8
Fair	32.0	28.2	31.3	34.4	31.0	25.2	35.7	13.5
Poor	8.8	11.1	9.5	7.3	2.3	3.3	3.6	1.9
Very Poor	4.9	5.7	4.3	2.5	1.9	2.8	7.1	--
Don't Know	1.3	1.7	0.4	0.3	0.5	0.5	--	--
Bases:	306	298	486	398	216	214	28	52

H-1

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Excellent	33.3%	69.2%	46.7%	61.8%	24.5%	21.1%	28.4%	36.8%
Good	50.0	30.8	36.7	30.9	42.9	38.6	52.3	36.0
Fair	16.7	--	10.0	5.5	16.3	24.6	10.2	21.1
Poor	--	--	6.7	1.8	14.3	7.0	2.3	3.5
Very Poor	--	--	--	--	2.0	3.5	4.5	1.8
Don't Know	--	--	--	--	--	5.3	2.3	0.9
Bases:	12	26	30	55	49	57	88	114

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(a) Crime

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	20.3%	20.8%	18.5%	13.6%	19.4%	9.3%	25.0%	9.6%
Somewhat Serious	20.6	18.1	23.7	23.1	15.7	17.3	25.0	15.4
Not Serious	55.9	58.4	55.8	59.8	63.0	71.0	46.4	73.1
Don't Know	3.3	2.7	2.1	3.5	1.9	2.3	3.6	1.9
Bases:	306	298	486	398	216	214	28	52

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	8.3%	--	10.0%	10.9%	16.3%	12.3%	10.2%	14.0%
Somewhat Serious	8.3	19.2	20.0	16.4	20.4	15.8	10.2	14.9
Not Serious	75.0	76.9	70.0	72.7	59.2	66.7	73.9	64.9
Don't Know	8.3	3.8	--	--	4.1	5.3	5.7	6.1
Bases:	12	26	30	55	49	57	88	114

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(b) Water pollution

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	16.3%	10.7%	20.4%	10.6%	22.7%	14.5%	14.3%	7.7%
Somewhat Serious	14.7	11.1	13.4	11.1	11.6	10.3	17.9	13.5
Not Serious	59.8	63.4	58.2	69.1	60.2	70.1	64.3	75.0
Don't Know	9.2	14.8	8.0	9.3	5.6	5.1	3.6	3.8
Bases:	306	298	486	398	216	214	28	52

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	16.7%	15.4%	26.7%	9.1%	14.3%	12.3%	19.3%	9.6%
Somewhat Serious	8.3	15.4	16.7	5.5	6.1	--	11.4	12.3
Not Serious	75.0	65.4	53.3	83.6	63.3	70.2	55.7	61.4
Don't Know	--	3.8	3.3	1.8	16.3	17.5	13.6	16.7
Bases:	12	26	30	55	49	57	88	114

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(c) Air pollution

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	38.9%	16.4%	43.8%	15.3%	46.8%	17.3%	50.0%	13.5%
Somewhat Serious	20.3	17.1	25.1	21.6	25.0	17.8	25.0	30.8
Not Serious	38.2	62.1	28.4	60.8	28.2	62.6	25.0	55.8
Don't Know	2.6	4.4	2.7	2.3	--	2.3	--	--
Bases:	306	298	486	398	216	214	28	52

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	33.3%	11.5%	50.0%	7.3%	34.7%	17.5%	30.7%	22.8%
Somewhat Serious	50.0	19.2	30.0	23.6	36.7	10.5	29.5	24.6
Not Serious	16.7	69.2	20.0	69.1	26.5	61.4	37.5	48.2
Don't Know	--	--	--	--	2.0	10.5	2.3	4.4
Bases:	12	26	30	55	49	57	88	114

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(d) Deterioration of streets, parks, sewerage, utilities, public buildings, etc.

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	22.2%	15.1%	19.5%	21.9%	17.6%	11.7%	21.4%	3.8%
Somewhat Serious	20.9	19.8	24.5	21.4	28.2	22.4	21.4	15.4
Not Serious	53.3	62.4	53.9	55.8	53.7	65.0	50.0	80.8
Don't Know	3.6	2.7	2.1	1.0	0.5	0.9	7.1	--
Bases:	306	298	486	398	216	214	28	52

	$17,500 - $19,999		$20,000 & Over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	16.7%	3.8%	3.3%	5.5%	18.4%	12.3%	11.4%	8.8%
Somewhat Serious	--	15.4	20.0	9.1	24.5	8.8	14.8	13.2
Not Serious	83.3	80.8	76.7	85.5	57.1	77.2	69.3	74.6
Don't Know	--	--	--	--	--	1.8	4.5	3.5
Bases:	12	26	30	55	49	57	88	114

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(e) Deterioration of shopping centers, stores, homes, industrial buildings, etc.

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	11.4%	11.7%	9.7%	12.6%	13.9%	5.1%	14.3%	3.8%
Somewhat Serious	17.0	12.8	17.9	16.6	19.0	16.8	3.6	3.8
Not Serious	67.0	73.2	70.2	69.6	67.1	77.6	82.1	92.3
Don't Know	4.6	2.3	2.3	1.2	--	0.5	--	--
Bases:	306	298	486	398	216	214	28	52

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	8.3%	3.8%	6.7%	1.8%	14.3%	7.0%	2.3%	3.5%
Somewhat Serious	8.3	7.7	13.3	10.9	22.4	12.3	10.2	14.9
Not Serious	83.3	88.5	80.0	87.3	63.3	80.7	84.1	78.9
Don't Know	--	--	--	--	--	--	3.4	2.6
Bases:	12	26	30	55	49	57	88	114

Q3 Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(f) Racial Tensions

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	6.2%	4.7%	8.4%	5.5%	11.6%	2.8%	10.7%	1.9%
Somewhat Serious	10.8	6.4	9.1	7.0	11.1	7.9	21.4	9.6
Not Serious	80.1	85.9	81.3	84.9	76.4	86.9	67.9	86.5
Don't Know	2.9	3.0	1.2	2.6	0.9	2.3	--	1.9
Bases:	306	298	486	398	216	214	28	52

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	--	--	3.3%	5.5%	8.2%	3.5%	3.4%	0.9%
Somewhat Serious	8.3	11.5	6.7	7.3	8.2	7.0	9.1	6.1
Not Serious	83.3	88.5	86.7	87.3	79.6	78.9	84.1	86.8
Don't Know	8.3	--	3.3	--	4.1	10.5	3.4	6.1
Bases:	12	26	30	55	49	57	88	114

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious."

(g) High taxes

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	50.3%	44.6%	43.4%	37.2%	37.0%	30.8%	21.4%	51.9%
Somewhat Serious	20.6	12.4	16.5	22.1	22.7	23.8	39.3	5.8
Not Serious	20.3	28.2	34.2	29.9	38.0	40.7	35.7	38.5
Don't Know	8.5	14.8	6.0	10.8	2.3	4.7	3.6	3.8
Bases:	306	298	486	398	216	214	28	52

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	25.0%	38.5%	33.3%	36.4%	42.9%	47.4%	38.6%	43.0%
Somewhat Serious	16.7	11.5	23.3	21.8	16.3	14.0	21.6	16.7
Not Serious	41.7	38.5	43.3	40.0	24.5	14.0	31.8	28.1
Don't Know	16.7	11.5	--	1.8	16.3	24.6	8.0	12.3
Bases:	12	26	30	55	49	57	88	114

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(h) Inadequate public transportation

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	15.4%	18.5%	16.3%	16.6%	15.7%	20.6%	14.3%	36.5%
Somewhat Serious	16.7	11.7	13.2	12.3	12.5	15.4	7.1	5.8
Not Serious	62.4	66.8	64.6	64.3	63.9	59.8	75.0	48.1
Don't Know	5.6	3.0	6.0	6.8	7.9	4.2	3.6	9.6
Bases:	306	298	486	398	216	214	28	52

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	16.7%	30.8%	16.7%	23.6%	12.2%	14.0%	12.5%	13.2%
Somewhat Serious	--	15.4	10.0	20.0	26.5	7.0	20.5	14.9
Not Serious	83.3	50.0	63.3	41.8	49.0	70.2	61.4	62.3
Don't Know	--	3.8	10.0	14.5	12.2	8.8	5.7	9.6
Bases:	12	26	30	55	49	57	88	114

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(a) Smoke or dust

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	76.9%	95.7%	85.2%	83.9%	90.8%	78.3%	91.3%	90.5%
No	19.4	4.3	13.7	14.7	8.5	21.7	4.3	9.5
Don't Know	3.8	--	1.1	1.4	0.7	--	4.3	--
Bases:	186	93	371	143	153	83	23	21

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	88.9%	80.0%	95.2%	100.0%	89.5%	72.2%	91.7%	82.0%
No	11.1	20.0	--	--	7.9	22.2	4.2	14.0
Don't Know	--	--	4.8	--	2.6	5.6	4.2	4.0
Bases:	9	5	21	19	38	18	48	50

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(a) Smoke or dust

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	76.7%	75.4%	82.6%	78.7%	88.3%	91.4%	80.0%	86.7%
No	15.5	15.3	17.4	18.2	10.0	8.6	--	13.3
Don't Know	7.8	9.4	--	3.2	1.7	--	20.0	--
Bases:	116	203	109	253	60	128	5	30

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	100.0%	71.4%	77.8%	94.4%	81.8%	66.7%	84.6%	68.9%
No	--	19.0	22.2	5.6	9.1	23.1	12.8	19.7
Don't Know	--	9.5	--	--	9.1	10.3	2.6	11.5
Bases:	3	21	9	36	11	39	39	61

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(b) Haze or fog

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	58.6%	59.1%	65.2%	62.9%	58.8%	44.6%	60.9%	47.6%
No	37.1	38.7	32.3	36.4	38.6	55.4	39.1	52.4
Don't Know	4.3	2.2	2.4	0.7	2.0	--	--	--
Bases:	186	93	371	143	153	83	23	21

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	66.7%	80.0%	61.9%	52.6%	52.6%	44.4%	54.2%	64.0%
No	33.3	20.0	33.3	47.4	42.1	50.0	39.6	30.0
Don't Know	--	--	4.8	--	5.3	5.6	6.3	6.0
Bases:	9	5	21	19	38	18	48	50

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(b) Haze or fog

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	42.2%	50.2%	58.7%	46.2%	55.0%	43.8%	80.0%	36.7%
No	47.4	40.4	40.4	50.2	41.7	56.3	20.0	56.7
Don't Know	10.3	9.4	0.9	3.6	3.3	--	--	6.7
Bases:	116	203	109	253	60	128	5	30

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	66.7%	42.9%	44.4%	50.0%	54.5%	35.9%	46.2%	41.0%
No	33.3	47.6	55.6	50.0	36.4	43.6	48.7	47.5
Don't Know	--	9.5	--	--	9.1	20.5	5.1	11.5
Bases:	3	21	9	36	11	39	39	61

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(c) Irritation of the eyes

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	68.8%	58.1%	72.8%	76.2%	74.5%	77.1%	82.6%	90.5%
No	28.0	38.7	24.8	23.8	24.2	21.7	17.4	9.5
Don't Know	3.2	3.2	2.4	--	1.3	1.2	--	--
Bases:	186	93	371	143	153	83	23	21

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	66.7%	80.0%	90.5%	73.7%	60.5%	66.7%	70.8%	72.0%
No	33.3	20.0	9.5	26.3	31.6	27.8	22.9	26.0
Don't Know	--	--	--	--	7.9	5.6	6.3	2.0
Bases:	9	5	21	19	38	18	48	50

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(c) Irritation of the eyes

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	44.0%	46.8%	67.9%	70.0%	71.7%	73.4%	80.0%	70.0%
No	44.8	43.3	30.3	26.1	28.3	23.4	20.0	30.0
Don't Know	11.2	9.9	1.8	4.0	--	3.1	--	--
	116	203	109	253	60	128	5	30

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	33.3%	61.9%	77.8%	88.9%	45.5%	46.2%	66.7%	59.0%
No	66.7	33.3	22.2	11.1	36.4	38.5	25.6	29.5
Don't Know	--	4.8	--	--	18.2	15.4	7.7	11.5
Bases:	3	21	9	36	11	39	39	61

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean. . .?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(d) Nose or throat irritation

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	59.7%	64.5%	70.6%	74.8%	73.9%	73.5%	78.3%	85.7%
No	36.6	31.2	26.1	23.1	24.8	22.9	13.0	9.5
Don't Know	3.8	4.3	3.2	2.1	1.3	3.6	8.7	4.8
Bases:	186	93	371	143	153	83	23	21

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	77.8%	100.0%	90.5%	68.4%	63.2%	77.8%	64.6%	68.0%
No	22.2	--	9.5	31.6	31.6	16.7	29.2	26.0
Don't Know	--	--	--	--	5.3	5.6	6.3	6.0
Bases:	9	5	21	19	38	18	48	50

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(d) Nose or throat irritation

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	44.0%	48.3%	58.7%	66.8%	63.3%	75.0%	80.0%	76.7%
No	46.6	42.9	37.6	27.3	35.0	21.1	20.0	20.0
Don't Know	9.5	8.9	3.7	5.9	1.7	3.9	--	3.3
Bases:	116	203	109	253	60	128	5	30

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	33.3%	52.4%	66.7%	86.1%	45.5%	43.6%	59.0%	57.4%
No	66.7	42.9	33.3	13.9	45.5	46.2	30.8	29.5
Don't Know	--	4.8	--	--	9.1	10.3	10.3	13.1
Bases:	3	21	9	36	11	39	39	61

Q8 "What do the words 'air pollution' mean to you. (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(e) Noticeable odors

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	90.3%	77.4%	91.4%	84.6%	89.5%	80.7%	95.7%	90.5%
No	7.5	21.5	7.5	15.4	9.8	19.3	4.3	9.5
Don't Know	2.2	1.1	1.1	--	0.7	--	--	--
Bases:	186	93	371	143	153	83	23	21

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	100.0%	60.0%	76.2%	94.7%	94.7%	66.7%	85.4%	80.0%
No	--	20.0	23.8	5.3	2.6	27.8	10.4	18.0
Don't Know	--	20.0	--	--	2.6	5.6	4.2	2.0
Bases:	9	5	21	19	38	18	48	50

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(e) Noticeable odors

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	49.1%	45.8%	70.6%	61.7%	78.3%	66.4%	80.0%	66.7%
No	44.8	46.3	25.7	35.2	18.3	31.3	20.0	30.0
Don't Know	6.0	7.9	3.7	3.2	3.3	2.3	--	3.3
Bases:	116	203	109	253	60	128	5	30

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	66.7%	61.9%	44.4%	77.8%	63.6%	38.5%	43.6%	60.7%
No	33.3	23.8	55.6	19.4	18.2	51.3	51.3	29.5
Don't Know	--	14.3	--	2.8	18.2	10.3	5.1	9.8
Bases:	3	21	9	36	11	39	39	61

Q8F "Could you describe in your own words just what some of these 'odors' smell like?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	17.3%	9.7%	15.0%	16.5%	14.6%	7.5%	18.2%	5.3%
None here	0.6	--	0.6	2.5	0.7	3.0	--	10.5
Burning garbage/trash	1.2	6.9	5.0	9.1	1.5	9.0	13.6	10.5
"Burning"/Smoke	7.1	19.4	9.7	23.1	8.0	9.0	4.5	21.1
Exhaust	2.4	18.1	3.2	12.4	2.9	17.9	--	15.8
Burning flesh	3.6	--	4.1	2.5	10.2	--	--	--
"Rotten"	17.3	1.4	14.7	2.5	11.7	3.0	9.1	5.3
Sulphur/Eggs	10.7	13.9	16.8	14.9	14.6	10.4	9.1	21.1
"Chemical"	20.8	11.1	21.5	19.0	19.7	22.4	18.2	15.8
Gasoline	11.3	18.1	12.1	16.5	9.5	14.9	9.1	15.8
Tar/Asphalt	2.4	--	1.2	1.7	2.9	1.5	--	5.3
Sweetish/Soapy	1.8	--	2.1	0.8	5.8	--	9.1	--
Sewer/Manure	13.1	11.1	10.6	8.3	10.9	6.0	13.6	5.3
Fertilizer	1.8	2.8	3.8	1.7	4.4	--	--	--
Vegetable/Onions/Garlic	2.4	1.4	1.8	1.7	4.4	1.5	18.2	5.3
"Metallic"	0.6	1.4	1.5	4.1	0.7	--	--	--
Medicinal	--	--	0.3	1.7	--	--	--	--
Skunky	1.2	--	0.3	--	--	--	--	--
Fishy	3.0	--	2.9	1.7	1.5	1.5	--	--
Rubber	1.2	1.4	2.4	3.3	4.4	--	--	5.3
Plastic	--	--	1.2	--	3.6	1.5	--	--
Vague answers	4.2	12.5	2.7	5.8	2.9	7.5	--	5.3
Bases:	168	72	339	121	137	67	22	19

Q8F CONTINUED (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY INCOME: Of those with an income of _____, ____% said _____.

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	11.1%	--	31.3%	--	13.9%	25.0%	26.8%	10.0%
None here	--	--	6.3	5.6	--	--	--	--
Burning garbage/trash	--	--	--	11.1	8.3	16.7	--	5.0
"Burning"/Smoke	22.2	--	--	5.6	2.8	25.0	9.8	5.0
Exhaust	--	--	--	33.3	2.8	8.3	2.4	35.0
Burning flesh	--	--	--	--	5.6	--	2.4	--
"Rotten"	--	--	18.8	--	13.9	--	14.6	5.0
Sulphur/Eggs	22.2	33.3	12.5	5.6	8.3	33.3	19.5	12.5
"Chemical"	44.4	33.3	12.5	33.3	13.9	8.3	22.0	5.0
Gasoline	11.1	66.7	--	16.7	8.3	16.7	22.0	17.5
Tar/Asphalt	--	--	6.3	--	--	16.7	2.4	--
Sweetish/Soapy	--	--	--	--	2.8	--	--	--
Sewer/Manure	22.2	--	25.0	--	27.8	25.0	14.6	10.0
Fertilizer	11.1	--	6.3	--	--	--	2.4	--
Vegetable/Onions/Garlic	--	--	--	--	--	--	--	--
"Metallic"	--	--	--	--	--	--	--	--
Medicinal	--	--	--	5.6	--	--	--	2.5
Skunky	--	--	--	--	--	--	--	--
Fishy	--	--	6.3	5.6	5.6	--	7.3	7.5
Rubber	--	--	--	--	--	--	4.9	--
Plastic	--	--	--	--	--	--	--	--
Vague answers	11.1	33.3	--	5.6	5.6	8.3	--	10.0
Bases:	9	3	16	18	36	12	41	40

Q8F "Could you describe in your own words just what some of these 'odors' smell like?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	15.8%	18.3%	14.3%	19.2%	8.5%	16.5%	--	10.0%
None here	10.5	8.6	5.2	5.1	6.4	9.4	25.0	5.0
Burning garbage/trash	5.3	5.4	6.5	11.5	4.3	4.7	--	5.0
"Burning"/Smoke	--	6.5	5.2	10.3	8.5	10.6	--	15.0
Exhaust	1.8	21.5	5.2	11.5	6.4	16.5	--	5.0
Burning flesh	7.0	--	3.9	--	6.4	--	25.0	--
"Rotten"	12.3	4.3	14.3	5.1	4.3	2.4	--	15.0
Sulphur/Eggs	5.3	4.3	6.5	7.7	12.8	10.6	25.0	10.0
"Chemical"	12.3	2.2	11.7	12.2	17.0	18.8	--	35.0
Gasoline	3.5	8.6	7.8	6.4	10.6	10.6	--	5.0
Tar/Asphalt	--	1.1	2.6	1.3	6.4	1.2	--	--
Sweetish/Soapy	5.3	--	--	0.6	--	--	--	--
Sewer/Manure	10.5	16.1	6.5	10.9	14.9	8.2	--	--
Fertilizer	3.5	--	5.2	1.9	2.1	2.4	25.0	--
Vegetable/Onions/Garlic	--	1.1	--	1.3	--	1.2	--	--
"Metallic"	--	--	--	--	--	--	--	--
Medicinal	--	1.1	--	--	--	--	--	--
Skunky	--	--	--	1.3	--	--	--	--
Fishy	3.5	1.1	3.9	2.6	8.5	1.2	--	5.0
Rubber	1.8	6.5	1.3	3.2	2.1	2.4	--	--
Plastic	--	--	--	--	--	--	--	--
Vague answers	7.0	4.3	7.8	3.8	4.3	4.7	--	5.0
Bases:	57	93	77	156	47	85	4	20

Q8F CONTINUED (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY INCOME: Of those with an income of _____, ____% said _____.

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	--	--	25.0%	7.1%	42.9%	40.0%	11.8%	24.3%
None here	--	7.7	--	3.6	14.3	26.7	5.9	8.1
Burning garbage/trash	--	--	--	--	--	6.7	--	5.4
"Burning"/Smoke	--	15.4	--	14.3	--	--	11.8	2.7
Exhaust	--	--	25.0	3.6	--	6.7	17.6	18.9
Burning flesh	--	--	--	--	--	--	--	--
"Rotten"	--	--	25.0	7.1	--	--	--	--
Sulphur/Eggs	50.0	23.1	--	14.3	--	6.7	--	5.4
"Chemical"	50.0	15.4	50.0	17.9	--	6.7	17.6	10.8
Gasoline	--	7.7	25.0	10.7	14.3	6.7	23.5	5.4
Tar/Asphalt	--	--	--	7.1	--	--	5.9	--
Sweetish/Soapy	--	--	--	10.7	--	--	--	--
Sewer/Manure	--	7.7	--	7.1	--	--	11.8	13.5
Fertilizer	--	--	--	10.7	--	--	--	--
Vegetable/Onions/Garlic	--	--	--	3.6	--	--	--	--
"Metallic"	--	7.7	--	--	--	--	--	2.7
Medicinal	--	--	--	--	--	--	--	--
Skunky	--	--	--	--	--	--	--	--
Fishy	--	7.7	--	3.6	--	--	5.9	2.7
Rubber	--	--	--	--	--	--	5.9	--
Plastic	--	--	--	--	--	--	--	--
Vague answers	--	15.4	--	7.1	--	13.3	5.9	5.4
Bases:	2	13	4	28	7	15	17	37

Q8G "Which one of these 'odors' do you smell most often in your area of the city?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	13.7%	5.6%	12.7%	7.4%	13.9%	9.0%	18.2%	5.3%
None here	1.2	--	1.2	5.8	0.7	7.5	--	26.3
Burning garbage/trash	2.4	5.6	3.2	9.1	0.7	7.5	--	10.5
"Burning"/Smoke	4.8	19.4	8.0	14.0	7.3	10.4	--	5.3
Exhaust	2.4	15.3	2.4	9.1	1.5	16.4	--	5.3
Burning flesh	3.6	--	4.4	1.7	13.9	3.0	4.5	--
"Rotten"	17.3	--	15.0	0.8	11.7	3.0	4.5	5.3
Sulphur/Eggs	7.7	5.6	10.3	6.6	10.2	4.5	4.5	10.5
"Chemical"	14.3	6.9	12.1	12.4	13.1	13.4	9.1	10.5
Gasoline	6.5	9.7	8.0	5.8	6.6	10.4	9.1	5.3
Tar/Asphalt	1.2	--	0.9	0.8	1.5	--	--	--
Sweetish/Soapy	1.2	--	1.2	--	2.9	--	4.5	--
Sewer/Manure	7.7	5.6	6.5	6.6	5.1	6.0	13.6	--
Fertilizer	--	--	2.1	0.8	2.2	--	--	--
Vegetable/Onions/Garlic	1.8	1.4	2.1	1.7	2.9	--	18.2	5.3
"Metallic"	1.2	2.8	1.2	3.3	--	--	--	--
Medicinal	--	--	0.3	0.8	--	--	--	--
Skunky	1.2	1.4	0.3	--	0.7	--	--	--
Fishy	1.8	--	1.5	--	0.7	--	--	--
Rubber	--	--	1.5	0.8	2.9	--	--	--
Plastic	--	--	0.6	--	0.7	--	--	--
Vague answers	3.0	12.5	2.1	5.8	1.5	6.0	--	5.3
Bases:	168	72	339	121	137	67	22	19

Q8G CONTINUED (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY INCOME: Of those with an income of _____, ____% said _____.

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	11.1%	--	12.5%	--	13.9%	8.3%	17.1%	7.5%
None here	--	--	--	22.2	--	--	4.9	--
Burning garbage/trash	--	--	--	5.6	5.6	16.7	--	2.5
"Burning"/Smoke	11.1	--	--	5.6	--	16.7	7.3	2.5
Exhaust	--	--	--	27.8	2.8	8.3	2.4	32.5
Burning flesh	--	--	--	--	8.3	--	2.4	--
"Rotten"	--	--	6.3	--	13.9	--	9.8	5.0
Sulphur/Eggs	--	--	--	5.6	5.6	8.3	14.6	10.0
"Chemical"	33.3	33.3	12.5	16.7	11.1	--	14.6	2.5
Gasoline	11.1	33.3	--	5.6	5.6	--	12.2	7.5
Tar/Asphalt	--	--	6.3	--	--	16.7	2.4	--
Sweetish/Soapy	--	--	--	--	2.8	--	--	--
Sewer/Manure	11.1	--	6.3	--	19.4	8.3	4.9	--
Fertilizer	11.1	--	6.3	--	--	--	--	--
Vegetable/Onions/Garlic	--	--	--	--	--	--	--	--
"Metallic"	--	--	--	--	--	--	--	--
Medicinal	--	--	--	5.6	--	--	--	2.5
Skunky	--	--	--	--	--	--	--	--
Fishy	--	--	6.3	--	2.8	--	2.4	7.5
Rubber	--	--	--	--	--	--	2.4	--
Plastic	--	--	--	--	--	--	--	--
Vague answers	11.1	33.3	--	5.6	8.3	8.3	2.4	5.0
Bases:	9	3	16	18	36	12	41	40

Q8G "Which one of these 'odors' do you smell most often in your area of the city?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - QSE)

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	12.3%	12.9%	9.1%	12.8%	4.3%	9.4%	--	10.0%
None here	12.3	10.8	6.5	11.5	4.3	22.4	25.0	35.0
Burning garbage/trash	3.5	4.3	3.9	7.7	2.1	4.7	--	--
"Burning"/Smoke	--	5.4	1.3	6.4	8.5	4.7	--	15.0
Exhaust	1.8	12.9	5.2	12.8	2.1	15.3	--	--
Burning flesh	5.3	--	2.6	--	6.4	--	25.0	--
"Rotten"	12.3	3.2	14.3	3.8	2.1	--	--	5.0
Sulphur/Eggs	1.8	4.3	5.2	2.6	6.4	5.9	25.0	--
"Chemical"	8.8	1.1	11.7	5.1	8.5	5.9	--	20.0
Gasoline	1.8	5.4	2.6	3.2	4.3	2.4	--	--
Tar/Asphalt	--	1.1	2.6	0.6	6.4	--	--	--
Sweetish/Soapy	1.8	--	--	--	--	--	--	--
Sewer/Manure	5.3	12.9	2.6	5.8	8.5	4.7	--	--
Fertilizer	1.8	--	3.9	--	--	--	25.0	--
Vegetable/Onions/Garlic	--	1.1	--	0.6	--	1.2	--	--
"Metallic"	--	--	--	--	--	--	--	--
Medicinal	--	1.1	--	--	--	--	--	--
Skunky	--	--	--	0.6	--	--	--	--
Fishy	3.5	--	--	1.3	--	--	--	5.0
Rubber	--	2.2	--	1.9	2.1	--	--	--
Plastic	--	--	--	--	--	--	--	--
Vague answers	3.5	3.2	1.3	1.3	4.3	3.5	--	--
Bases:	57	93	77	156	47	85	4	20

Q8G CONTINUED (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY INCOME: Of those with an income of _____, ____% said _____.

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	--	--	--	7.1%	28.6%	26.7%	5.9%	8.1%
None here	--	23.1	--	28.6	14.3	26.7	--	27.0
Burning garbage/trash	--	--	--	--	--	6.7	--	5.4
"Burning"/Smoke	--	--	--	7.1	--	--	5.9	2.7
Exhaust	--	--	--	--	--	6.7	23.5	13.5
Burning flesh	--	--	--	--	--	--	--	--
"Rotten"	--	--	25.0	3.6	--	--	--	--
Sulphur/Eggs	50.0	15.4	--	3.6	--	--	--	2.7
"Chemical"	50.0	15.4	25.0	3.6	--	6.7	11.8	2.7
Gasoline	--	7.7	25.0	--	14.3	--	17.6	5.4
Tar/Asphalt	--	--	--	3.6	--	--	5.9	--
Sweetish/Soapy	--	--	--	3.6	--	--	--	--
Sewer/Manure	--	--	--	3.6	--	--	--	2.7
Fertilizer	--	--	--	3.6	--	--	--	--
Vegetable/Onions/Garlic	--	--	--	3.6	--	--	--	--
"Metallic"	--	7.7	--	--	--	--	--	2.7
Medicinal	--	--	--	--	--	--	--	--
Skunky	--	--	--	--	--	--	--	--
Fishy	--	7.7	--	--	--	--	5.9	--
Rubber	--	--	--	--	--	--	5.9	--
Plastic	--	--	--	--	--	--	--	--
Vague answers	--	15.4	--	3.6	--	--	5.9	5.4
Bases:	2	13	4	28	7	15	17	37

Q14A "Do you own or are you purchasing this home (apartment or townhouse)?"
(BASED ON THOSE WHO SAW SOME DEGREE OF SERIOUSNESS IN Q10)

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	69.2%	61.3%	73.5%	62.6%	84.9%	74.7%	82.6%	89.5%
No	30.8	39.7	26.5	37.4	15.1	25.3	17.4	10.5
Bases:	211	111	377	174	166	83	23	19

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	88.9%	83.3%	93.8%	87.5%	60.0%	84.6%	75.5%	77.2%
No	11.1	16.7	6.2	12.5	40.0	15.4	24.5	22.8
Bases:	9	6	16	16	40	13	53	57

Q14B "Do you feel that odor pollution has reduced the value of your home property in any way, or not?" (IF "YES" TO Q14A)

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	21.2%	7.4%	24.5%	11.9%	23.4%	9.7%	15.8%	--
No	62.3	80.9	65.0	82.6	62.4	80.6	68.4	94.1
Don't Know	16.5	11.7	10.5	5.5	14.2	9.7	15.8	5.9
	146	68	277	109	141	62	19	17

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	--	--	20.0%	7.1%	8.3%	18.2%	10.0%	6.8%
No	100.0	100.0	73.3	92.9	75.0	45.5	67.5	70.5
Don't Know	--	--	6.7	--	16.7	36.3	22.5	22.7
Bases:	8	5	15	14	24	11	40	44

Q14C "What do you feel some of these bad effects upon your property may be?" (IF "YES" TO Q14B)

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Buyers wouldn't come if they smelled area	45.2%	80.0%	51.5%	7.7%	51.5%	50.0%	33.3%	--
Ruins paint	12.9	--	20.6	30.8	12.1	16.7	33.3	--
Can't use yard	3.2	--	2.9	7.7	12.1	--	--	--
Stay inside because of odor; don't maintain house	12.9	--	--	--	--	--	--	--
Kills plants	--	--	1.5	--	--	--	--	--
"Vague"	22.5	20.0	7.4	30.8	24.3	16.7	33.3	--
Don't know/No response	9.7	--	17.7	15.4	9.1	16.7	--	--
Bases:	31	5	68	13	33	6	3	0

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Buyers wouldn't come if they smelled area	--	--	--	100.0%	50.0%	--	50.0%	66.7%
Ruins paint	--	--	33.3	--	--	--	25.0	--
Can't use yard	--	--	--	--	--	--	--	--
Stay inside because of odor; don't maintain house	--	--	--	--	--	50.0	25.0	--
Kills plants	--	--	--	--	--	--	--	--
"Vague"	--	--	33.3	--	--	50.0	--	33.3
Don't know/No response	--	--	33.3	--	50.0	--	--	--
Bases:	0	0	3	1	2	2	4	3

Q15 "Have you ever seriously considered moving away from here because of odor pollution in the air?" (BASED ON THOSE WHO SAW SOME DEGREE OF SERIOUSNESS IN Q10)

BY INCOME: Of those with an income of _____, ____% said _____.

	Under $5,000		$ 5,000 - $ 9,999		$10,000 - $14,999		$15,000 - $17,499	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	15.2%	9.0%	18.8%	12.6%	22.3%	15.7%	13.0%	--
No	84.8	91.0	81.2	87.4	77.7	84.3	87.0	100.0
Bases:	211	111	377	174	166	83	23	19

	$17,500 - $19,999		$20,000 & over		Don't Know		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	--	--	6.3%	6.3%	7.5%	7.7%	13.2%	10.5%
No	100.0	100.0	93.7	93.7	92.5	92.3	86.8	89.5
Bases:	9	6	16	16	40	13	53	57

APPENDIX I

FINDINGS OF PUBLIC OPINION SURVEY OF RESIDENTS — SUMMARY, BY OCCUPATION, OF TEST AND CONTROL GROUPS FOR ALL CITIES COMBINED

Q1 "In general, how would you rate your area of the city as a place to live? Would you rate it...?"

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Enployed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Excellent	31.6%	38.6%	37.0%	45.2%	18.4%	34.7%	15.7%	19.2%	16.0%	10.4%
Good	49.1	36.4	29.6	27.4	42.9	34.7	41.0	35.2	29.4	32.1
Fair	14.0	19.3	22.2	21.9	27.2	26.7	31.3	31.1	36.1	40.6
Poor	3.5	2.3	9.3	5.5	8.2	2.0	6.7	11.4	11.8	11.3
Very Poor	--	2.3	1.9	--	2.7	1.3	4.5	2.6	5.9	5.7
Don't Know	1.8	1.1	--	--	--	0.7	0.7	--	0.8	--
Bases:	57	88	54	73	147	150	268	193	119	106

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Excellent	6.7%	28.6%	20.5%	32.5%	20.4%	28.9%	16.7%	-- %	25.0%	11.1%
Good	53.3	57.1	38.5	29.2	38.6	39.1	44.4	20.0	18.8	44.4
Fair	33.3	14.3	29.1	25.3	28.7	23.4	22.2	26.7	37.5	33.3
Poor	6.7	--	5.1	7.1	7.2	4.7	11.1	33.3	18.8	--
Very Poor	--	--	3.4	3.9	4.8	2.9	5.6	20.0	--	11.1
Don't Know	--	--	3.4	1.9	0.3	0.8	--	--	--	--
Bases:	15	7	117	154	334	384	18	15	16	9

* "Labor" classification is a combination of Semi-Skilled/Operatives and Laborers/Agricultural Workers. Nationwide, three respondents gave their occupation as "Military." Because of this very small sample size, the "Military" classification has been omitted from the tables.

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(a) Crime

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	17.5%	9.1%	18.5%	13.7%	17.0%	6.0%	19.8%	15.5%	27.7%	15.1%
Somewhat Serious	26.3	22.7	16.7	9.6	19.0	20.0	20.5	18.7	20.2	26.4
Not Serious	54.4	65.9	63.0	76.7	61.9	71.3	58.6	63.7	50.4	52.8
Don't Know	1.8	2.3	1.9	--	2.0	2.7	1.1	2.1	1.7	5.7
Bases:	57	88	54	73	147	150	268	193	119	106

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	13.3%	14.3%	16.2%	22.7%	17.1%	13.0%	22.2%	20.0%	12.5%	22.2%
Somewhat Serious	13.3	--	17.9	14.3	20.4	20.6	22.2	33.3	12.5	--
Not Serious	66.7	85.7	62.4	58.4	59.3	62.5	50.0	46.7	75.0	66.7
Don't Know	6.7	--	3.4	4.5	3.3	3.9	5.6	--	--	11.1
Bases:	15	7	117	154	334	384	18	15	16	9

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(b) Water pollution

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	24.6%	19.3%	25.9%	9.6%	20.4%	8.7%	22.4%	13.5%	18.5%	10.4%
Somewhat Serious	12.3	9.1	14.8	9.6	10.9	11.3	15.3	11.9	10.9	6.6
Not Serious	52.6	65.9	55.6	76.7	57.8	76.0	56.0	66.3	63.9	69.8
Don't Know	10.5	5.7	3.7	4.1	10.9	4.0	6.3	8.3	6.7	13.2
Bases:	57	88	54	73	147	150	268	193	119	106

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	26.7%	-- %	14.5%	7.8%	16.2%	9.6%	11.1%	13.3%	--	22.2%
Somewhat Serious	13.3	--	15.4	11.0	11.7	10.9	16.7	6.7	12.5	22.2
Not Serious	53.3	85.7	61.5	61.7	63.5	68.5	61.1	66.7	75.0	33.3
Don't Know	6.7	14.3	8.5	19.5	8.7	10.9	11.1	13.3	12.5	22.2
Bases:	15	7	117	154	334	384	18	15	16	9

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(c) Air pollution

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	52.6%	14.8%	33.3%	12.3%	46.9%	16.0%	47.0%	18.1%	44.5%	14.2%
Somewhat Serious	28.1	35.2	33.3	17.8	18.4	18.7	26.9	22.8	15.4	11.3
Not Serious	19.3	48.9	31.5	69.9	33.3	64.7	23.9	56.0	40.3	70.8
Don't Know	--	1.1	1.9	--	1.4	0.7	2.2	3.1	1.7	3.8
Bases:	57	88	54	73	147	150	268	193	119	106

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	33.3%	-- %	29.1%	14.3%	39.2%	16.7%	27.8%	13.3%	31.3%	33.3%
Somewhat Serious	46.7	14.3	27.4	18.8	26.0	20.1	38.9	13.3	25.0	11.1
Not Serious	20.0	85.7	42.7	61.0	31.4	59.4	33.3	66.7	43.8	44.4
Don't Know	--	--	0.9	5.8	3.3	3.9	--	6.7	--	11.1
Bases:	15	7	117	154	334	384	18	15	16	9

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(d) Deterioration of streets, parks, sewerage, utilities, public buildings, etc.

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	14.0%	10.2%	13.0%	11.0%	18.4%	14.7%	21.3%	22.3%	22.7%	19.8%
Somewhat Serious	24.6	23.9	20.4	9.6	31.3	17.3	25.4	25.9	19.3	23.6
Not Serious	59.6	64.8	64.8	78.1	49.0	68.0	51.1	50.8	53.8	54.7
Don't Know	1.8	1.1	1.9	1.4	1.4	--	2.2	1.0	4.2	1.9
Bases:	57	88	54	73	147	150	268	193	119	106

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	20.0%	42.9%	22.2%	9.1%	16.8%	12.5%	16.7%	13.3%	6.3%	44.4%
Somewhat Serious	20.0	28.6	17.9	14.3	22.2	16.7	27.8	20.0	12.5	22.2
Not Serious	60.0	28.6	54.7	74.0	59.9	69.5	55.6	60.0	81.3	22.2
Don't Know	--	--	5.1	2.6	1.2	1.3	--	6.7	--	11.1
Bases:	15	7	117	154	334	384	18	15	16	9

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(e) Deterioration of shopping centers, stores, homes, industrial buildings, etc.

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	10.5%	8.0%	9.3%	4.1%	12.9%	4.0%	8.6%	14.0%	16.8%	16.0%
Somewhat Serious	19.3	13.6	20.4	13.7	17.7	13.3	17.9	17.1	16.0	17.9
Not Serious	70.2	78.4	68.5	82.2	67.3	82.7	71.3	67.9	66.4	65.1
Don't Know	--	--	1.9	--	2.0	--	2.2	1.0	0.8	0.9
Bases:	57	88	54	73	147	150	268	193	119	106

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	-- %	-- %	12.0%	9.1%	9.6%	7.0%	11.1%	20.0%	6.3%	33.3%
Somewhat Serious	6.7	14.3	15.4	13.0	16.8	13.5	16.7	13.3	--	11.1
Not Serious	93.3	85.7	65.8	75.3	71.3	77.6	72.2	66.7	93.8	44.4
Don't Know	--	--	6.8	2.6	2.4	1.6	--	--	--	11.1
Bases:	15	7	117	154	334	384	18	15	16	9

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(f) Racial tensions

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	1.8%	4.5%	13.0%	2.7%	9.5%	2.0%	10.1%	6.2%	9.2%	3.8%
Somewhat Serious	15.8	8.0	7.4	5.5	11.6	4.0	10.1	6.7	10.1	8.5
Not Serious	82.5	84.1	77.8	90.4	76.2	92.0	78.4	86.0	79.8	82.1
Don't Know	--	3.4	1.9	1.4	2.7	2.0	1.5	1.0	0.8	5.7
Bases:	57	88	54	73	147	150	268	193	119	106

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	6.7%	14.3%	3.4%	4.5%	7.2%	3.4%	5.6%	6.7%	6.3%	--
Somewhat Serious	20.0	--	7.7	8.4	10.2	8.1	16.7	13.3	6.3	--
Not Serious	73.3	85.7	85.5	81.2	80.5	85.9	77.8	73.3	87.5	77.8
Don't Know	--	--	3.4	5.8	2.1	2.3	--	6.7	--	22.2
Bases:	15	7	117	154	334	384	18	15	16	9

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(g) High taxes

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	35.1%	42.0%	42.6%	38.4%	35.4%	38.0%	42.5%	42.5%	52.9%	34.9%
Somewhat Serious	24.6	18.2	16.7	12.3	27.9	15.3	16.0	20.7	16.0	21.7
Not Serious	33.3	34.1	40.7	46.6	31.3	38.7	35.4	28.5	27.7	23.6
Don't Know	7.0	5.7	--	2.7	5.4	8.0	6.0	8.3	3.4	19.8
Bases:	57	88	54	73	147	150	268	193	119	106

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	46.7%	57.1%	47.9%	40.9%	41.9%	39.1%	38.9%	53.3%	43.8%	44.4%
Somewhat Serious	13.3	14.3	17.1	11.7	20.1	20.6	16.7	6.7	18.8	--
Not Serious	33.3	28.6	29.1	28.6	28.1	30.5	27.8	26.7	37.5	33.3
Don't Know	6.7	--	6.0	18.8	9.6	9.6	16.7	13.3	--	22.2
Bases:	15	7	117	154	334	384	18	15	16	9

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(h) Inadequate public transportation

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	21.1%	26.1%	18.5%	31.5%	19.7%	22.0%	15.3%	20.7%	17.6%	11.3%
Somewhat Serious	24.6	21.6	14.8	11.0	11.6	6.7	16.0	13.5	15.1	14.2
Not Serious	47.4	47.7	61.1	49.3	63.9	64.0	61.6	59.1	60.5	67.9
Don't Know	7.0	4.5	5.6	8.2	4.8	7.3	7.1	6.2	6.7	6.6
Bases:	57	88	54	73	147	150	268	193	119	106

	Student		Retired		Housewife		Umemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	6.7%	28.6%	12.0%	15.6%	13.5%	15.4%	11.1%	13.3%	6.3%	33.3%
Somewhat Serious	--	28.6	15.4	13.6	12.9	11.7	22.2	--	18.8	33.3
Not Serious	86.7	42.9	65.0	66.2	68.9	66.9	61.1	86.7	68.8	22.2
Don't Know	6.7	--	7.7	4.5	4.8	5.5	5.6	--	6.3	11.1
Bases:	15	7	117	154	334	384	18	15	16	9

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(a) Smoke or dust

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	90.5%	85.4%	82.4%	81.5%	83.8%	80.5%	89.0%	85.0%	81.6%	90.3%
No	2.4	14.6	14.7	18.5	16.2	17.1	10.0	15.0	14.5	9.7
Don't Know	7.1	--	2.9	--	--	2.4	0.9	--	3.9	--
Bases:	42	41	34	27	105	41	219	80	76	31

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	88.9%	50.0%	75.0%	87.0%	85.3%	86.6%	78.6%	100.0%	90.0%	100.0%
No	11.1	50.0	23.2	7.4	13.4	12.7	--	--	10.0	--
Don't Know	--	--	1.8	5.6	1.3	0.7	21.4	--	--	--
Bases:	9	2	56	54	232	142	14	3	10	4

Q8 "What do the words'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(a) Smoke or dust

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	78.6%	84.8%	90.0%	82.6%	78.9%	84.0%	84.8%	79.5%	81.4%	78.4%
No	14.3	13.0	10.0	17.4	18.4	13.2	15.2	17.9	18.6	13.5
Don't Know	7.1	2.2	--	--	2.6	2.8	--	2.7	--	8.1
Bases:	14	46	20	46	38	106	46	112	43	74

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	80.0%	80.0%	72.1%	74.7%	85.0%	78.3%	100.0%	63.6%	80.0%	75.0%
No	20.0	20.0	16.4	17.2	12.0	15.8	--	27.3	20.0	--
Don't Know	--	--	11.5	8.1	3.0	5.8	--	9.1	--	25.0
Bases:	5	5	61	99	100	240	3	11	5	4

Q8 "What do the words 'air pollution' mean to you? (Please answer "Yes" or "No" to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(b) Haze or fog

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	57.1%	56.1%	61.8%	44.4%	62.9%	51.2%	60.7%	56.3%	60.5%	64.5%
No	38.1	43.9	35.3	55.6	36.2	46.3	36.1	43.8	34.2	35.5
Don't Know	4.8	--	2.9	--	1.0	2.4	2.7	--	5.3	--
Bases:	42	41	34	27	105	41	219	80	76	31

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	55.6%	-- %	53.6%	50.0%	65.9%	62.0%	64.3%	100.0%	70.0%	75.0%
No	33.3	100.0	46.4	44.4	31.0	35.9	35.7	--	20.0	25.0
Don't Know	11.1	--	--	5.6	3.0	2.1	--	--	10.0	--
Bases:	9	2	56	54	232	142	14	3	10	4

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(b) Haze or fog

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	50.0%	43.5%	60.0%	39.1%	44.7%	50.9%	45.7%	43.8%	65.1%	35.1%
No	50.0	52.2	40.0	56.5	55.3	45.3	52.2	55.4	32.6	58.1
Don't Know	--	4.3	--	4.3	--	3.8	2.2	0.9	2.3	6.8
Bases:	14	46	20	46	38	106	46	112	43	74

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	40.0%	20.0%	41.0%	53.5%	55.0%	43.3%	33.3%	54.5%	60.0%	75.0%
No	60.0	80.0	47.5	37.4	39.0	48.8	66.7	36.4	20.0	--
Don't Know	--	--	11.5	9.1	6.0	7.9	--	9.1	20.0	25.0
Bases:	5	5	61	99	100	240	3	11	5	4

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(c) Irritation of the eyes

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	71.4%	85.4%	79.4%	70.4%	80.0%	75.6%	68.9%	72.5%	75.0%	71.0%
No	23.8	14.6	20.6	29.6	17.1	24.4	26.9	26.3	25.0	25.8
Don't Know	4.8	--	--	--	2.9	--	4.1	1.3	--	3.2
Bases:	42	41	34	27	105	41	219	80	76	31

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	66.7%	100.0%	50.0%	57.4%	73.7%	72.5%	92.9%	33.3%	70.0%	100.0%
No	33.3	--	50.0	37.0	22.4	26.8	7.1	66.7	30.0	--
Don't Know	--	--	--	5.6	3.9	0.7	--	--	--	--
Bases:	9	2	56	54	232	142	14	3	10	4

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(c) Irritation of the eyes

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	78.6%	80.4%	65.0%	73.9%	78.9%	69.8%	71.7%	66.1%	67.4%	62.2%
No	21.4	15.2	30.0	19.6	21.1	27.4	28.3	32.1	27.9	25.7
Don't Know	--	4.3	5.0	6.5	--	2.8	--	1.8	4.7	12.2
Bases:	14	46	20	46	38	106	46	112	43	74

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	80.0%	20.0%	31.1%	38.4%	63.0%	64.2%	33.3%	72.7%	60.0%	50.0%
No	20.0	80.0	55.7	52.5	31.0	28.3	66.7	27.3	40.0	25.0
Don't Know	--	--	13.1	9.1	6.0	7.5	--	--	--	25.0
Bases:	5	5	61	99	100	240	3	11	5	4

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(d) Nose or throat irritation

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	76.2%	85.4%	70.6%	55.6%	75.2%	78.0%	63.0%	65.0%	64.5%	71.0%
No	16.7	14.6	26.5	37.0	22.9	22.0	32.4	31.3	35.5	19.4
Don't Know	7.1	--	2.9	7.4	1.9	--	4.6	3.8	--	9.6
Bases:	42	41	34	27	105	41	219	80	76	31

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	66.7%	100.0%	51.8%	59.3%	74.1%	78.9%	78.6%	33.3%	70.0%	100.0%
No	33.3	--	46.4	35.2	21.6	18.3	21.4	66.7	20.0	--
Don't Know	--	--	1.8	5.6	4.3	2.8	--	--	10.0	--
Bases:	9	2	56	54	232	142	14	3	10	4

Q8 "What do the words 'air pollution mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(d) Nose or throat irritation

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	64.3%	76.1%	65.0%	71.7%	71.1%	69.8%	58.7%	65.2%	60.5%	60.8%
No	35.7	17.4	25.0	21.7	28.9	24.5	41.3	31.3	34.9	27.0
Don't Know	--	6.5	10.0	6.5	--	5.7	--	3.6	4.7	12.2
Bases:	14	46	20	46	38	106	46	112	43	74

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	80.0%	20.0%	37.7%	38.4%	53.0%	64.6%	33.3%	45.5%	20.0%	50.0%
No	20.0	80.0	50.8	51.5	41.0	30.0	66.7	36.4	40.0	25.0
Don't Know	--	--	11.5	10.1	6.0	5.4	--	18.2	40.0	25.0
Bases:	5	5	61	99	100	240	3	11	5	4

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(e) Noticeable odors

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	92.9%	80.5%	85.3%	77.8%	92.4%	92.7%	90.0%	80.0%	92.1%	77.4%
No	7.1	19.5	11.8	22.2	6.7	7.3	8.7	20.0	7.9	19.4
Don't Know	--	--	2.9	--	1.0	--	1.4	--	--	3.2
Bases:	42	41	34	27	105	41	219	80	76	31

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	100.0%	50.0%	87.5%	81.5%	89.2%	82.4%	92.9%	66.7%	100.0%	50.0%
No	--	50.0	10.7	16.7	8.2	16.9	7.1	33.3	--	25.0
Don't Know	--	--	1.8	1.9	2.6	0.7	--	--	--	25.0
Bases:	9	2	56	54	232	142	14	3	10	4

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(e) Noticeable odors

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	57.1%	67.4%	55.0%	69.6%	65.8%	59.4%	76.1%	55.4%	72.1%	55.4%
No	35.7	28.3	40.0	30.4	34.2	36.8	23.9	42.0	23.3	33.8
Don't Know	7.1	4.3	5.0	--	--	3.8	--	2.7	4.7	10.8
Bases:	14	46	20	46	38	106	46	112	43	74

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	60.0%	40.0%	37.7%	43.4%	65.0%	61.3%	-- %	63.6%	20.0%	-- %
No	40.0	60.0	52.5	50.5	29.0	32.9	100.0	27.3	80.0	75.0
Don't Know	--	--	9.8	6.1	6.0	5.8	--	9.1	--	25.0
Bases:	5	5	61	99	100	240	3	11	5	4

Q8F "Could you describe in your own words just what some of these 'odors' smell like?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION Q8E)

BY OCCUPATION: Of those whose occupation was _____, _____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	10.3%	12.1%	17.2%	-- %	13.4%	13.2%	19.3%	15.6%	11.4%	16.7%
None here	2.6	3.0	--	--	1.0	5.3	0.5	3.1	--	8.3
Burning garbage/trash	2.6	3.0	--	23.8	3.1	10.5	4.6	7.8	2.9	12.5
"Burning"/Smoke	12.8	15.2	10.3	14.3	8.2	13.2	9.1	21.9	8.6	4.2
Exhaust	--	24.2	10.3	28.6	2.1	13.2	2.0	15.6	2.9	20.8
Burning flesh	--	--	6.9	--	4.1	--	6.1	1.6	8.6	--
"Rotten"	10.3	6.1	6.9	--	15.5	2.6	13.2	--	17.1	--
Sulphur/Eggs	5.1	15.2	6.9	14.3	15.5	7.9	15.7	6.3	11.4	16.7
"Chemical"	28.2	18.2	31.0	19.0	21.6	21.1	17.8	12.5	17.1	8.3
Gasoline	7.7	12.1	13.8	19.0	5.2	26.3	9.6	15.6	14.3	8.3
Tar/Asphalt	5.1	--	--	4.8	1.0	2.6	2.0	--	2.9	4.2
Sweet/Soapy	2.6	--	3.4	--	5.2	--	3.0	--	2.9	--
Sewer/Manure	12.8	6.1	10.3	14.3	15.5	7.9	8.1	10.9	17.1	8.3
Fertilizer	7.7	--	--	--	5.2	--	4.1	1.6	--	--
Vegetable/Onions/Garlic	2.6	--	3.4	9.5	8.2	2.6	1.5	1.6	2.9	--
"Metallic"	--	3.0	--	--	3.1	--	1.0	3.1	1.4	--
Medicinal	--	3.0	--	--	--	--	--	--	1.4	--
Skunky	--	--	--	--	--	--	1.0	--	--	--
Fishy	5.1	--	3.4	--	5.2	2.6	1.0	3.1	1.4	8.3
Rubber	5.1	3.0	--	--	5.2	--	1.0	3.1	--	4.2
Plastic	2.6	--	--	--	3.1	--	1.0	1.6	--	--
Vague answers	5.1	3.0	--	--	3.1	2.6	3.0	12.5	4.3	20.8
Bases:	39	33	29	21	97	38	197	64	70	24

Q8F CONTINUED (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	22.2%	-- %	22.4%	11.4%	17.4%	9.4%	15.4%	50.0%	30.0%	-- %
None here	--	--	2.0	--	--	0.9	--	--	--	--
Burning garbage/trash	--	--	--	6.8	3.9	6.8	7.7	--	--	--
"Burning"/Smoke	--	100.0	12.2	15.9	6.8	17.9	7.7	--	10.0	--
Exhaust	--	--	2.0	20.5	4.3	15.4	--	50.0	--	50.0
Burning flesh	--	--	6.1	--	3.4	1.7	23.1	--	--	--
"Rotten"	22.2	--	14.3	2.3	15.9	2.6	7.7	--	20.0	--
Sulphur/Eggs	22.2	--	6.1	15.9	17.9	19.7	15.4	--	40.0	--
"Chemical"	11.1	--	20.4	9.1	21.7	21.4	30.8	--	20.0	50.0
Gasoline	--	--	16.3	13.6	13.0	17.9	15.4	50.0	30.0	--
Tar/Asphalt	11.1	--	2.0	--	1.0	2.6	--	--	--	--
Sweet/Soapy	--	--	2.0	--	2.4	0.9	--	--	--	--
Sewer/Manure	22.2	--	14.3	4.5	13.0	9.4	--	--	10.0	--
Fertilizer	11.1	--	2.0	--	2.4	2.6	--	--	--	--
Vegetable/Onions/Garlic	--	--	--	2.3	1.9	--	--	--	--	--
"Metallic"	--	--	--	2.3	0.5	1.7	--	--	--	--
Medicinal	--	--	--	--	--	2.6	--	--	--	--
Skunky	--	--	--	--	0.5	--	--	--	--	--
Fishy	11.1	--	--	2.3	3.9	0.9	7.7	--	10.0	--
Rubber	11.1	--	--	--	2.9	1.7	--	--	--	--
Plastic	--	--	--	--	1.0	--	--	--	--	--
Vague answers	--	--	4.1	4.5	2.9	8.5	--	--	--	50.0
Bases:	9	1	49	44	207	117	13	2	10	2

Q8F "Could you describe in your own words just what some of these 'odors' smell like?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	12.5%	12.9%	9.1%	31.3%	8.0%	12.7%	8.6%	22.6%	12.9%	26.8%
None here	12.5	3.2	9.1	9.4	--	6.3	11.4	12.9	6.5	7.3
Burning garbage/trash	12.5	6.5	--	--	4.0	4.8	2.9	12.9	6.5	7.3
"Burning"/Smoke	--	--	--	15.6	4.0	11.1	8.6	8.1	9.7	4.9
Exhaust	12.5	19.4	9.1	3.1	8.0	14.3	2.9	8.1	3.2	4.9
Burning flesh	--	--	--	--	--	--	5.7	--	9.7	--
"Rotten"	12.5	9.7	18.2	6.3	12.0	4.8	8.6	3.2	6.5	--
Sulphur/Eggs	25.0	16.1	18.2	12.5	20.0	11.1	5.7	6.5	--	2.4
"Chemical"	25.0	16.1	9.1	15.6	12.0	19.0	22.9	11.3	6.5	7.3
Gasoline	--	3.2	9.1	3.1	12.0	7.9	5.7	3.2	9.7	19.5
Tar/Asphalt	12.5	3.2	--	3.1	--	--	--	1.6	--	2.4
Sweetish/Soapy	--	3.2	--	--	--	--	--	1.6	3.2	2.4
Sewer/Manure	--	19.4	9.1	3.1	12.0	6.3	11.4	9.7	12.9	9.8
Fertilizer	--	3.2	--	3.1	8.0	1.6	5.7	1.6	3.2	--
Vegetable/Onions/Garlic	--	--	--	--	--	1.6	--	--	--	--
"Metallic"	--	3.2	--	--	--	--	--	--	--	--
Medicinal	--	--	--	--	--	--	--	1.6	--	--
Skunky	--	--	--	--	--	--	--	--	--	--
Fishy	12.5	12.9	9.1	--	4.0	3.2	5.7	2.4	6.5	--
Rubber	--	3.2	9.1	--	--	4.8	5.7	3.2	--	--
Plastic	--	--	--	--	--	--	--	--	--	--
Vague answers	--	3.2	--	9.4	8.0	7.9	5.7	--	12.9	4.9
Bases:	8	31	11	32	25	63	35	62	31	41

Q8F CONTINUED (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	-- %	-- %	21.7%	16.3%	12.3%	12.9%	-- %	42.9%	100.0%	-- %
None here	33.3	--	13.0	4.7	6.2	7.5	--	--	--	--
Burning garbage/trash	--	--	--	--	6.2	8.2	--	14.3	--	--
"Burning"/Smoke	--	50.0	--	4.7	3.1	10.2	--	14.3	--	--
Exhaust	--	--	4.3	25.6	7.7	17.0	--	28.6	--	--
Burning flesh	--	--	8.7	--	6.2	--	--	--	--	--
"Rotten"	33.3	--	17.4	4.7	7.7	4.8	--	--	--	--
Sulphur/Eggs	--	--	4.3	2.3	7.7	9.5	--	--	--	--
"Chemical"	33.3	50.0	8.7	7.0	15.4	10.9	--	--	--	--
Gasoline	--	--	8.7	7.0	12.3	8.8	--	--	--	--
Tar/Asphalt	--	--	--	--	7.7	0.7	--	--	--	--
Sweetish/Soapy	--	--	8.7	--	--	0.7	--	--	--	--
Sewer/Manure	--	--	8.7	20.9	6.2	10.9	--	--	--	--
Fertilizer	--	--	--	--	1.5	2.7	--	--	--	--
Vegetable/Onions/Garlic	--	--	--	2.3	--	1.4	--	--	--	--
"Metallic"	--	--	--	--	--	0.7	--	--	--	--
Medicinal	--	--	--	--	--	--	--	--	--	--
Skunky	--	--	--	--	--	0.7	--	--	--	--
Fishy	--	--	--	4.7	1.5	0.7	--	--	--	--
Rubber	--	--	--	--	1.5	3.4	--	14.3	--	--
Plastic	--	--	--	--	--	--	--	--	--	--
Vague answers	--	--	4.3	7.0	6.2	4.1	--	--	--	--
Bases:	3	2	23	43	65	147	--	7	1	--

Q8G "Which one of these 'odors' do you smell most often in your area of the city?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	7.7%	15.4%	16.6%	4.8%	13.4%	13.2%	13.0%	12.3%	20.0%	15.0%
None here	--	9.1	--	23.8	1.0	7.9	2.5	3.1	2.9	8.3
Burning garbage/trash	2.6	--	3.4	23.8	--	2.6	4.1	9.4	--	8.3
"Burning"/Smoke	12.8	12.1	10.3	9.5	5.2	7.9	7.6	14.1	5.7	4.2
Exhaust	--	24.2	6.9	19.0	--	10.5	2.0	14.1	--	17.5
Burning flesh	--	3.0	6.9	--	4.1	--	7.1	3.1	11.4	4.2
"Rotten"	7.7	3.0	10.3	--	15.5	2.6	15.2	--	18.6	--
Sulphur/Eggs	2.6	9.1	3.4	--	8.2	5.3	11.7	--	5.7	5.3
"Chemical"	20.5	9.1	24.7	9.5	11.3	18.6	10.7	6.3	10.0	8.3
Gasoline	5.1	3.0	3.4	--	5.2	21.0	7.6	9.4	10.0	--
Tar/Asphalt	5.1	--	--	--	--	2.6	2.0	--	--	--
Sweetish/Soapy	2.6	--	3.4	--	3.1	--	2.5	--	1.4	--
Sewer/Manure	7.7	3.0	10.3	4.8	13.4	2.6	4.1	9.4	2.9	4.2
Fertilizer	7.7	--	--	--	5.2	--	2.0	1.6	--	--
Vegetable/Onions/Garlic	2.6	--	3.4	4.8	6.2	2.6	1.5	1.6	2.9	--
"Metallic"	--	3.0	--	--	1.0	--	1.0	3.1	1.4	--
Medicinal	--	3.0	--	--	--	--	--	--	1.4	--
Skunky	--	--	--	--	1.0	--	0.5	--	--	--
Fishy	2.6	--	3.4	--	1.0	--	1.0	1.6	1.4	4.2
Rubber	5.1	--	--	--	1.0	--	1.0	--	--	--
Plastic	2.6	--	--	--	1.0	--	--	--	--	--
Vague answers	5.1	3.0	--	--	3.1	2.6	3.0	10.9	4.3	20.8
Bases:	39	33	29	21	97	38	197	64	70	24

Q8G CONTINUED (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	33.3%	-- %	22.4%	17.1%	17.5%	8.5%	15.4%	50.0%	30.0%	-- %
None here	--	--	2.0	--	--	4.3	--	--	--	50.0
Burning garbage/trash	--	--	2.0	4.5	2.9	7.7	7.7	--	--	--
"Burning"/Smoke	--	100.0	6.1	11.4	5.3	14.5	7.7	--	10.0	--
Exhaust	--	--	4.1	22.7	3.9	11.1	--	50.0	--	--
Burning flesh	--	--	6.1	--	5.3	--	23.1	--	--	--
"Rotten"	11.1	--	10.2	2.3	14.0	2.6	7.7	--	10.0	--
Sulphur/Eggs	11.1	--	4.1	9.1	12.1	11.1	15.4	--	20.0	--
"Chemical"	11.1	--	14.3	9.1	13.5	13.7	15.4	--	10.0	--
Gasoline	--	--	10.2	9.1	7.2	7.7	--	--	10.0	--
Tar/Asphalt	--	--	2.0	--	1.0	1.7	--	--	--	--
Sweetish/Soapy	11.1	--	--	--	--	--	--	--	--	--
Sewer/Manure	22.2	--	10.2	2.3	8.7	5.1	--	--	10.0	--
Fertilizer	--	--	--	--	--	--	--	--	--	--
Vegetable/Onions/Garlic	--	--	--	2.3	1.9	--	--	--	--	--
"Metallic"	--	--	2.0	2.3	0.5	1.7	--	--	--	--
Medicinal	--	--	--	--	--	1.7	--	--	--	--
Skunky	--	--	--	--	0.5	0.9	--	--	--	--
Fishy	--	--	--	2.3	1.9	--	7.7	--	--	--
Rubber	--	--	--	--	1.9	0.9	--	--	--	--
Plastic	--	--	--	--	--	--	--	--	--	--
Vague answers	--	--	4.1	4.5	1.9	6.8	--	--	--	50.0
Bases:	9	1	49	44	207	117	13	2	10	2

Q8G "Which one of these 'odors' do you smell most often in your area of the city?"
(BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	37.5%	25.9%	27.2%	31.3%	20.0%	26.9%	17.1%	26.5%	32.3%	23.4%
None here	--	16.1	9.1	43.8	4.0	15.9	2.9	19.4	3.2	14.6
Burning garbage/trash	12.5	--	--	--	--	4.8	2.9	11.3	6.5	4.9
"Burning"/Smoke	--	--	--	6.3	4.0	7.9	11.4	8.1	6.5	4.9
Exhaust	12.5	12.9	9.1	--	8.0	12.7	8.6	14.5	3.2	2.4
Burning flesh	--	--	--	--	--	--	5.7	--	6.5	--
"Rotten"	12.5	6.5	18.2	--	12.0	1.6	8.6	3.2	3.2	--
Sulphur/Eggs	12.5	3.2	9.1	6.3	20.0	6.3	2.9	3.2	--	--
"Chemical"	12.5	12.9	9.1	6.3	8.0	7.9	17.1	3.2	3.2	--
Gasoline	--	--	9.1	--	4.0	3.2	2.9	1.6	6.5	9.8
Tar/Asphalt	--	--	--	--	--	--	--	1.6	--	--
Sweetish/Soapy	--	--	--	--	--	--	--	1.6	3.2	--
Sewer/Manure	--	9.7	--	--	4.0	3.2	8.6	4.8	9.7	7.3
Fertilizer	--	--	--	3.1	4.0	--	5.7	--	3.2	--
Vegetable/Onions/Garlic	--	--	--	--	--	1.6	--	--	--	--
"Metallic"	--	3.2	--	--	--	--	--	--	--	--
Medicinal	--	--	--	--	--	--	--	1.6	--	--
Skunky	--	--	--	--	--	--	--	--	--	--
Fishy	--	6.5	9.1	--	4.0	1.6	--	--	--	--
Rubber	--	--	--	--	--	3.2	2.9	--	--	--
Plastic	--	--	--	--	--	--	--	--	--	--
Vague answers	--	3.2	--	3.1	8.0	3.2	2.9	--	12.9	33.3
Bases:	8	31	11	32	25	63	35	62	31	41

Q8G CONTINUED (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	-- %	-- %	39.5%	31.9%	27.9%	28.9%	-- %	42.9%	100.0%	-- %
None here	33.3	--	13.0	11.6	10.8	16.3	--	--	--	--
Burning garbage/trash	--	--	--	--	1.5	6.8	--	14.3	--	--
"Burning"/Smoke	--	--	--	4.7	--	4.8	--	14.3	--	--
Exhaust	--	--	4.3	18.6	1.5	12.9	--	14.3	--	--
Burning flesh	--	--	8.7	--	4.6	--	--	--	--	--
"Rotten"	33.3	--	13.0	2.3	9.2	3.4	--	--	--	--
Sulphur/Eggs	--	--	4.3	2.3	4.6	4.8	--	--	--	--
"Chemical"	33.3	--	4.3	2.3	13.8	5.4	--	--	--	--
Gasoline	--	--	4.3	4.7	7.7	2.7	--	--	--	--
Tar/Asphalt	--	--	--	--	7.7	0.7	--	--	--	--
Sweetish/Soapy	--	--	4.3	--	--	--	--	--	--	--
Sewer/Manure	--	--	4.3	14.0	3.1	6.8	--	--	--	--
Fertilizer	--	--	--	--	1.5	--	--	--	--	--
Vegetable/Onions/Garlic	--	--	--	2.3	--	0.7	--	--	--	--
"Metallic"	--	--	--	--	--	0.7	--	--	--	--
Medicinal	--	--	--	--	--	--	--	--	--	--
Skunky	--	--	--	--	--	0.7	--	--	--	--
Fishy	--	--	--	--	1.5	0.7	--	--	--	--
Rubber	--	--	--	--	1.5	0.7	--	14.3	--	--
Plastic	--	--	--	--	--	--	--	--	--	--
Vague answers	--	--	--	4.7	3.1	2.7	--	--	--	--
Bases:	3	2	23	43	65	147	--	7	1	--

Q14A "Do you own or are you purchasing this home (apartment or townhouse)?"
(BASED ON THOSE WHO SAW SOME DEGREE OF SERIOUSNESS IN Q10)

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	75.0%	78.1%	77.1%	86.7%	73.3%	72.7%	74.5%	60.0%	65.9%	61.9%
No	20.0	18.8	22.9	13.3	25.7	23.6	24.5	33.8	34.1	38.1
Don't Know	5.0	--	--	--	1.0	--	0.9	1.3	--	--
Bases:	40	32	35	15	105	55	215	80	88	42

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	84.6%	--	84.9%	59.3%	74.6%	76.3%	76.5%	66.7%	90.0%	25.0%
No	15.4	--	15.1	35.6	23.8	21.5	23.5	33.3	10.0	50.0
Don't Know	--	--	--	1.7	1.6	0.6	--	--	--	25.0
Bases:	13	--	73	59	256	177	17	3	10	4

Q14B "Do you feel that odor pollution has reduced the value of your home property in any way, or not?"
(IF "YES" TO Q14A)

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	23.3%	8.0%	18.5%	15.4%	28.6%	2.5%	27.2%	16.7%	24.1%	7.7%
No	56.7	84.0	63.0	76.9	61.0	95.0	60.8	72.9	63.8	84.6
Don't Know	20.0	8.0	18.5	7.7	10.4	2.5	12.0	8.3	12.1	7.7
Bases:	30	25	27	13	77	40	158	48	58	26

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	9.1%	-- %	17.7%	8.6%	16.2%	8.9%	7.7%	-- %	22.2%	-- %
No	81.8	--	69.4	71.4	69.1	80.0	76.9	100.0	66.7	100.0
Don't Know	9.1	--	12.9	20.0	14.7	11.1	15.4	--	11.1	--
Bases:	11	--	62	35	191	135	13	2	9	1

Q14C "What do you feel some of these bad effects upon your property may be?" (IF "YES" TO Q14B)

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Buyers wouldn't come if they smelled area	28.6%	50.0%	60.0%	50.0%	50.0%	-- %	48.8%	62.5%	57.1%	-- %
Ruins paint	14.3	50.0	--	--	13.6	--	23.3	12.5	14.3	--
Can't use yard	14.3	--	--	--	18.2	--	--	--	7.1	50.0
Stay inside because of odor; don't maintain house	--	--	--	--	4.5	--	2.3	--	--	--
Kills plants	--	--	--	--	--	100.0	--	12.5	7.1	50.0
"Vague"	28.6	--	40.0	--	9.1	--	11.6	--	--	--
Don't know/No response	14.3	--	--	50.0	4.5	--	14.0	12.5	14.3	--
Bases:	786	2	5	2	22	1	43	8	14	2

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Buyers wouldn't come if they smelled area	100.0%	-- %	36.4%	66.7%	51.6%	16.7%	100.0%	--	100.0%	--
Ruins paint	--	--	18.2	--	12.9	25.0	--	--	--	--
Can't use yard	--	--	9.1	--	--	--	--	--	--	--
Stay inside because of odor; don't maintain house	--	--	--	--	9.7	--	--	--	--	--
Kills plants	--	--	--	33.3	--	33.3	--	--	--	--
"Vague"	--	--	27.3	--	3.2	--	--	--	--	--
Don't know/No response	--	--	9.1	--	22.6	8.3	--	--	--	--
Bases:	1	--	11	3	31	12	1	--	2	--

Q15 "Have you ever seriously considered moving away from here because of odor pollution in the air?" (BASED ON THOSE WHO SAW SOME DEGREE OF SERIOUSNESS IN Q10)

BY OCCUPATION: Of those whose occupation was _____, ____% said _____.

	Professional/ Technical		Managers/ Self-Employed		Clerical/Sales		Skilled/Service		Labor*	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	20.0%	3.1%	14.3%	13.3%	16.2%	16.4%	16.5%	11.3%	21.6%	11.9%
No	80.0	96.9	85.7	86.7	83.8	83.6	83.5	88.7	78.4	88.1
Bases:	40	32	35	15	105	55	212	80	88	42

	Student		Retired		Housewife		Unemployed		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	23.1%	-- %	9.6%	10.2%	17.2%	10.7%	23.5%	33.3%	30.0%	-- %
No	76.9	--	90.4	89.9	82.8	88.7	76.5	66.7	70.0	100.0
Bases:	13	--	73	59	256	177	17	3	10	4

APPENDIX J

FINDINGS OF PUBLIC OPINION SURVEY OF RESIDENTS – SUMMARY, BY EDUCATION, OF TEST AND CONTROL GROUPS FOR ALL CITIES COMBINED

Q1 "In general, how would you rate <u>your area of the city</u> as a place to live? Would you rate it...?"

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Excellent	15.4%	18.2%	25.7%	20.0%	16.1%	15.3%	21.5%	28.2%	17.5%	37.7%
Good	37.0	34.6	27.0	32.3	36.8	34.0	40.3	37.8	41.6	27.7
Fair	31.7	29.0	28.4	32.3	31.0	38.2	28.1	26.9	31.4	25.2
Poor	9.3	11.7	9.5	12.3	12.6	6.9	5.9	4.6	5.1	4.4
Very Poor	5.3	4.7	9.5	3.1	2.3	5.6	3.6	1.5	2.9	5.0
Don't Know	1.2	1.9	--	--	1.1	--	0.7	0.8	0.7	--
Bases:	246	214	74	65	174	144	442	394	137	159

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Excellent	33.9%	48.0%	44.0%	43.2%	23.1%	32.0%	25.0%	15.6%
Good	38.7	35.8	40.0	37.8	41.0	26.0	43.8	50.0
Fair	21.0	12.2	12.0	16.2	28.2	28.0	25.0	18.8
Poor	6.5	2.4	--	--	2.6	10.0	6.3	9.4
Very Poor	--	1.6	4.0	--	5.1	2.0	--	3.1
Don't Know	--	--	--	2.7	--	--	--	3.1
Bases:	62	123	25	37	39	50	16	32

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(a) Crime

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	22.4%	17.8%	10.8%	16.9%	21.3%	18.8%	17.9%	12.2%	16.8%	11.9%
Somewhat Serious	17.5	14.5	20.3	20.0	21.8	20.1	19.9	22.3	24.1	19.5
Not Serious	57.3	64.0	63.5	61.5	54.0	59.7	60.4	63.2	56.2	64.2
Don't Know	2.8	3.7	5.4	1.5	2.9	1.4	1.8	2.3	2.9	4.4
Bases:	246	214	74	65	174	144	442	394	137	159

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	12.9%	8.9%	12.0%	13.5%	23.1%	12.0%	--	18.8%
Somewhat Serious	24.2	13.8	24.0	21.6	12.8	24.0	6.3	12.5
Not Serious	62.9	72.4	60.0	62.2	61.5	64.0	75.0	53.1
Don't Know	--	4.9	4.0	2.7	2.6	--	18.8	15.6
Bases:	62	123	25	37	39	50	16	32

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(b) Water pollution

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	13.4%	10.7%	18.9%	9.2%	17.8%	9.7%	21.3%	9.4%	26.3%	13.2%
Somewhat Serious	17.1	5.1	10.8	12.3	14.4	20.1	12.2	9.6	12.4	13.2
Not Serious	60.6	67.3	62.2	64.6	62.1	58.3	57.0	71.8	54.0	69.2
Don't Know	8.9	16.8	8.1	13.8	5.7	11.8	9.5	9.1	7.3	4.4
Bases:	246	214	74	65	174	144	442	394	137	159

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	19.4%	12.2%	16.0%	24.3%	30.8%	18.0%	12.5%	12.5%
Somewhat Serious	8.1	6.5	12.0	13.5	5.1	12.0	18.8	6.3
Not Serious	62.9	75.6	68.0	56.8	53.8	62.0	62.5	56.3
Don't Know	9.7	5.7	4.0	5.4	10.3	8.0	6.3	25.0
Bases:	62	123	25	37	39	50	16	32

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(c) Air pollution

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	33.3%	12.1%	43.2%	16.9%	42.0%	15.3%	43.4%	20.1%	46.7%	15.1%
Somewhat Serious	22.4	10.7	25.7	16.9	29.9	26.4	23.8	20.8	23.4	17.0
Not Serious	41.5	72.0	29.7	66.2	25.3	51.4	30.8	56.9	29.2	66.0
Don't Know	2.8	5.1	1.4	--	2.9	6.9	2.0	2.3	0.7	1.9
Bases:	246	214	74	65	174	144	442	394	137	159

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	56.5%	13.8%	48.0%	16.2%	43.6%	14.0%	31.3%	15.6%
Somewhat Serious	25.8	27.6	28.0	29.7	30.8	20.0	31.3	25.0
Not Serious	17.7	57.7	24.0	54.1	25.6	66.0	37.5	46.9
Don't Know	--	0.8	--	--	--	--	--	12.5
Bases:	62	123	25	37	39	50	16	32

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(d) Deterioration of streets, parks, sewerage, utilities, public buildings, etc.

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	16.7%	19.2%	14.9%	13.8%	27.6%	15.3%	19.2%	15.0%	21.9%	15.1%
Somewhat Serious	24.4	18.2	24.3	24.6	20.1	25.7	25.1	18.5	19.0	15.1
Not Serious	56.1	59.8	59.5	60.0	50.0	58.3	53.6	66.0	55.5	68.6
Don't Know	2.8	2.8	1.4	1.5	2.3	0.7	2.0	0.5	3.6	1.3
Bases:	246	214	74	65	174	144	442	394	137	159

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	9.7%	8.1%	8.0%	10.8%	15.4%	20.0%	6.3%	9.4%
Somewhat Serious	21.0	13.8	20.0	27.0	30.8	22.0	12.5	6.3
Not Serious	69.4	77.2	72.0	62.2	53.8	54.0	68.8	71.9
Don't Know	--	0.8	--	--	--	4.0	12.5	12.5
Bases:	62	123	25	37	39	50	16	32

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(e) Deterioration of shopping centers, stores, homes, industrial buildings, etc.

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	9.8%	11.7%	4.1%	13.8%	11.5%	7.6%	12.2%	8.4%	11.7%	10.1%
Somewhat Serious	15.0	9.8	16.2	12.3	19.5	22.2	15.6	14.7	19.7	13.8
Not Serious	70.7	77.1	78.4	72.3	67.2	69.4	70.6	75.4	65.0	76.1
Don't Know	4.5	1.4	1.4	1.5	1.7	0.7	1.6	1.3	3.6	--
Bases:	246	214	74	65	174	144	442	394	137	159

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	9.7%	4.9%	8.0%	10.8%	12.8%	8.0%	--	3.1%
Somewhat Serious	22.6	10.6	16.0	13.5	23.1	22.0	--	18.8
Not Serious	67.7	83.7	76.0	75.7	64.1	70.0	93.8	65.6
Don't Know	--	0.8	--	--	--	--	6.3	12.5
Bases:	62	123	25	37	39	50	16	32

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(f) Racial tensions

BY EDUCATION: Of those with an education of _____, _____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	6.1%	4.2%	4.1%	1.5%	8.0%	6.9%	9.7%	4.8%	6.6%	3.1%
Somewhat Serious	8.1	5.6	10.8	6.2	10.9	6.9	9.5	6.9	15.3	5.7
Not Serious	82.9	86.4	83.8	90.8	79.9	84.0	79.4	85.5	75.9	88.1
Don't Know	2.8	3.7	1.4	1.5	1.1	2.1	1.4	2.5	2.2	3.1
Bases:	246	214	74	65	174	144	442	394	137	159

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	11.3%	2.4%	4.0%	2.7%	10.3%	2.0%	--	--
Somewhat Serious	16.1	11.4	4.0	13.5	2.6	6.0	--	9.4
Not Serious	71.0	84.6	92.0	81.1	82.1	88.0	87.5	71.9
Don't Know	1.6	1.6	--	2.7	5.1	4.0	12.5	18.8
Bases:	62	123	25	37	39	50	16	32

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(g) High taxes

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	45.9%	50.5%	52.7%	36.9%	46.6%	41.0%	39.8%	35.0%	43.1%	42.1%
Somewhat Serious	18.3	11.7	17.6	27.7	22.4	21.5	19.5	20.3	19.7	15.1
Not Serious	26.8	25.2	24.3	21.5	23.0	28.5	34.8	33.2	32.8	33.3
Don't Know	8.5	12.6	5.4	13.8	8.0	9.0	5.9	11.2	4.4	9.4
Bases:	246	214	74	65	174	144	442	394	137	159

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	40.3%	35.0%	24.0%	45.9%	41.0%	38.0%	31.3%	28.1%
Somewhat Serious	14.5	17.9	28.0	16.2	15.4	18.0	31.3	15.6
Not Serious	41.9	41.5	40.0	32.4	35.9	36.0	37.5	31.3
Don't Know	3.2	5.7	8.0	5.4	7.7	8.0	14.3	25.0
Bases:	62	123	25	37	39	50	16	32

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(h) Inadequate public transportation

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Serious	11.8%	15.0%	12.2%	23.1%	13.8%	18.8%	16.1%	18.0%	22.6%	17.6%
Somewhat Serious	16.3	7.9	13.5	15.4	14.9	9.7	15.6	13.2	10.2	17.6
Not Serious	65.0	71.0	67.6	58.5	66.1	66.7	61.8	63.5	59.9	56.6
Don't Know	6.9	5.6	6.8	3.1	5.2	4.2	6.6	5.1	7.3	8.2
Bases:	246	214	74	65	174	144	442	394	137	159

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	21.0%	26.8%	8.0%	29.7%	17.9%	22.0%	18.8%	6.3%
Somewhat Serious	12.9	11.4	32.0	21.6	7.7	14.0	6.3	21.9
Not Serious	64.5	54.5	56.0	45.9	64.1	54.0	62.5	59.4
Don't Know	1.6	7.3	4.0	2.7	10.3	10.0	12.5	12.5
Bases:	62	123	25	37	39	50	16	32

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(a) Smoke or dust

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	82.5%	86.0%	84.6%	86.4%	83.5%	90.6%	87.5%	85.0%	83.2%	89.7%
No	13.0	8.8	11.5	13.6	15.7	9.4	11.9	15.0	13.1	10.3
Don't Know	4.5	5.3	3.8	--	0.8	--	0.6	--	3.7	--
Bases:	154	57	52	22	127	53	312	147	107	58

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	91.7%	78.0%	94.1%	90.5%	87.0%	93.3%	87.5%	66.7%
No	8.3	20.0	--	9.5	13.0	6.7	12.5	25.0
Don't Know	--	2.0	5.9	--	--	--	--	8.3
Bases:	48	50	17	21	23	15	8	12

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(a) Smoke or dust

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	79.8%	73.9%	90.9%	79.1%	68.2%	73.3%	85.5%	83.7%	89.7%	85.7%
No	12.4	17.8	9.1	16.3	29.5	17.4	12.9	14.3	10.3	12.2
Don't Know	7.9	8.3	--	4.7	2.3	9.3	1.6	2.0	--	2.0
Bases:	89	157	22	43	44	86	124	245	29	98

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	100.0%	86.3%	50.0%	87.5%	73.3%	85.7%	62.5%	26.3%
No	--	12.3	37.5	12.5	26.7	14.3	12.5	31.6
Don't Know	--	1.4	12.5	--	--	--	25.0	42.1
Bases:	14	73	8	16	15	35	8	19

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(b) Haze or fog

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	59.7%	50.9%	63.5%	40.9%	61.4%	54.7%	62.2%	65.3%	57.0%	50.0%
No	37.0	45.6	30.8	59.1	34.6	41.5	35.9	33.3	37.4	50.0
Don't Know	3.2	3.5	5.8	--	3.9	3.8	1.9	1.4	4.7	--
	154	57	52	22	127	53	312	147	107	58

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	64.6%	50.0%	47.1%	61.9%	78.3%	73.3%	50.0%	58.3%
No	35.4	50.0	47.1	38.1	21.7	26.7	37.5	33.3
Don't Know	--	--	5.9	--	--	--	12.5	8.3
Bases:	48	50	17	21	23	15	8	12

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(b) Haze or fog

BY EDUCATION: Of those with an education if _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	53.9%	46.5%	63.6%	53.5%	52.3%	47.7%	49.2%	46.5%	48.3%	51.0%
No	32.6	42.7	31.8	44.2	45.5	43.0	49.2	50.6	51.7	44.9
Don't Know	13.5	10.8	4.5	2.3	2.3	9.3	1.6	2.9	--	4.1
Bases:	89	157	22	43	44	86	124	245	29	98

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	57.1%	34.2%	37.5%	50.0%	53.3%	45.7%	25.0%	26.3%
No	42.9	64.4	62.5	50.0	46.7	51.4	50.0	31.6
Don't Know	--	1.4	--	--	--	2.9	25.0	42.1
Bases:	14	73	8	16	15	35	8	19

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(c) Irritation of the eyes

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	64.3%	63.2%	73.1%	72.7%	71.7%	67.9%	74.0%	68.0%	72.9%	74.1%
No	30.5	31.6	19.2	27.3	26.8	32.1	24.7	31.3	22.4	22.4
Don't Know	5.2	5.3	7.7	--	1.6	--	1.3	0.7	4.7	3.4
Bases:	154	57	52	22	127	53	312	147	107	58

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	83.3%	90.0%	82.4%	81.0%	60.9%	93.3%	75.0%	66.7%
No	16.7	10.0	17.6	19.0	39.1	6.7	25.0	33.3
Don't Know	--	--	--	--	--	--	--	--
Bases:	48	50	17	21	23	15	8	12

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(c) Irritation of the eyes

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	41.6%	47.8%	50.0%	46.5%	61.4%	62.8%	70.2%	69.8%	65.5%	72.4%
No	44.9	40.8	45.5	48.8	36.4	26.7	27.4	26.5	31.0	26.5
Don't Know	13.5	11.5	4.5	4.7	2.3	10.5	2.4	3.7	3.4	1.0
Bases:	89	157	22	43	44	86	124	245	29	98

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	100.0%	74.0%	62.5%	75.0%	60.0%	71.4%	50.0%	31.6%
No	--	23.3	37.5	12.5	40.0	28.6	25.0	42.1
Don't Know	--	2.7	--	12.5	--	--	25.0	26.3
Bases:	14	73	8	16	15	35	8	19

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(d) Nose or throat irritation

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	56.5%	61.4%	73.1%	72.7%	62.2%	67.9%	71.8%	71.4%	72.9%	72.4%
No	37.0	29.8	21.2	18.2	35.4	28.3	26.3	26.5	23.4	25.9
Don't Know	6.5	8.8	5.8	9.1	2.4	3.8	1.9	2.0	3.7	1.7
Bases:	154	57	52	22	127	53	312	147	107	58

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	79.2%	86.0%	88.2%	76.2%	82.6%	86.7%	75.0%	66.7%
No	16.7	12.0	11.8	19.0	17.4	13.3	25.0	33.3
Don't Know	4.2	2.0	--	4.8	--	--	--	--
Bases:	48	50	17	21	23	15	8	12

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(d) Nose or throat irritation

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	42.7%	46.5%	50.0%	51.2%	47.7%	65.1%	63.7%	64.5%	58.6%	77.6%
No	46.1	40.1	45.5	46.5	45.5	27.9	32.3	30.6	41.4	20.4
Don't Know	11.2	13.4	4.5	2.3	6.8	7.0	4.0	4.9	--	2.0
Bases:	89	157	22	43	44	86	124	245	29	98

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	78.6%	72.6%	50.0%	75.0%	60.0%	77.1%	37.5%	26.3%
No	21.4	24.7	50.0	12.5	40.5	20.0	37.5	47.4
Don't Know	--	2.7	--	12.5	--	2.9	25.0	26.3
Bases:	14	73	8	16	15	35	8	19

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(e) Noticeable odors

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	83.8%	75.4%	90.4%	81.8%	92.1%	88.7%	93.3%	79.6%	90.7%	81.0%
No	12.3	22.8	5.8	13.6	6.3	11.3	6.1	19.7	9.3	19.0
Don't Know	3.9	1.8	3.8	4.5	1.6	--	0.6	0.7	--	--
Bases:	154	57	52	22	127	53	312	147	107	58

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	87.5%	92.0%	88.2%	76.2%	95.7%	80.0%	87.5%	58.3%
No	12.5	8.0	11.8	23.8	4.3	20.0	12.5	33.3
Don't Know	--	--	--	--	--	--	--	8.3
Bases:	48	50	17	21	23	15	8	12

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(e) Noticeable odors

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	56.2%	45.9%	59.1%	58.1%	59.1%	54.7%	63.7%	61.2%	79.3%	66.3%
No	33.7	41.4	36.4	41.9	38.6	40.7	33.9	35.5	20.7	32.7
Don't Know	10.1	12.7	4.5	--	2.3	4.7	2.4	3.3	--	1.0
Bases:	89	157	22	43	44	86	124	245	29	98

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	64.3%	67.1%	62.5%	81.3%	60.0%	60.0%	37.5%	31.6%
No	28.6	28.8	37.5	12.5	40.0	40.0	37.5	42.1
Don't Know	7.1	4.1	--	6.3	--	--	25.0	26.3
Bases:	14	73	8	16	15	35	8	19

Q8F "Could you describe in your own words just what some of these 'odors' smell like?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	20.9%	20.9%	10.6%	22.2%	15.4%	10.6%	17.2%	11.1%	11.3%	8.5%
None here	--	--	4.3	--	0.7	--	--	2.6	--	6.4
Burning garbage/trash	1.6	7.0	--	--	6.0	12.8	4.1	10.3	4.1	4.3
"Burning"/Smoke	6.2	9.3	12.8	22.2	12.8	19.1	7.6	19.7	9.3	17.0
Exhaust	3.9	18.6	2.1	5.6	0.9	8.5	2.7	20.5	2.1	14.9
Burning flesh	1.6	2.3	2.1	5.6	6.0	2.1	6.5	--	5.2	--
"Rotten"	13.2	2.8	12.8	--	15.4	6.4	13.1	1.7	19.6	2.1
Sulphur/Eggs	9.3	4.7	21.3	22.2	10.3	14.9	16.5	12.8	18.6	27.7
"Chemical"	17.1	7.0	23.4	16.7	17.9	10.6	18.9	17.1	25.8	14.9
Gasoline	14.0	20.9	12.8	16.7	13.7	23.4	11.7	15.4	7.2	14.9
Tar/Asphalt	1.6	2.3	4.3	--	1.7	--	0.7	1.7	4.1	2.1
Sweetish/Soapy	4.3	--	6.8	--	2.1	2.1	3.1	--	4.8	--
Sewer/Manure	18.6	16.3	12.8	16.7	12.8	12.8	8.9	7.7	13.4	4.3
Fertilizer	3.1	--	2.1	--	4.3	4.3	1.7	--	5.2	2.1
Vegetable/Onions/Garlic	1.6	--	4.3	--	3.4	2.1	2.4	0.9	4.1	4.3
"Metallic"	--	--	4.3	--	0.9	2.1	1.0	2.6	--	--
Medicinal	--	--	--	--	--	--	0.3	0.9	--	--
Skunky	0.8	--	--	--	0.9	--	0.3	--	--	--
Fishy	3.9	5.6	4.3	4.3	1.7	1.7	2.7	2.1	5.2	2.2
Rubber	1.6	2.3	3.4	--	1.4	4.3	5.2	0.9	2.4	2.1
Plastic	1.6	--	--	--	--	--	1.7	0.9	1.0	--
Vague answers	3.9	11.6	--	11.1	4.3	8.5	3.1	6.8	3.1	10.6
Bases:	129	43	47	18	117	47	291	117	97	47

Q8F CONTINUED (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY EDUCATION: Of those with an education of _____, ____% said _____.

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	14.3%	6.5%	20.0%	6.3%	9.1%	8.3%	42.9%	50.0%
None here	6.7	4.3	--	--	--	--	--	--
Burning garbage/trash	2.4	13.0	--	--	9.1	8.3	--	--
"Burning"/Smoke	7.1	13.0	--	6.3	9.1	16.7	20.0	14.3
Exhaust	7.1	23.9	--	31.3	4.5	16.7	--	28.6
Burning flesh	4.8	--	--	--	4.5	--	--	--
"Rotten"	19.0	2.2	13.3	6.3	4.5	--	14.3	--
Sulphur/Eggs	9.5	13.0	20.0	6.3	27.3	16.7	14.3	--
"Chemical"	28.6	34.8	20.0	12.5	45.5	25.0	--	--
Gasoline	4.8	13.0	--	18.8	18.2	8.3	28.6	28.6
Tar/Asphalt	2.4	4.3	2.4	--	6.7	--	--	--
Sweetish/Soapy	--	--	--	--	--	--	--	--
Sewer/Manure	11.9	4.3	13.3	6.3	27.3	8.3	14.3	--
Fertilizer	4.8	--	6.7	--	4.5	8.3	14.3	--
Vegetable/Onions/Garlic	--	--	6.7	6.3	--	--	--	--
"Metallic"	2.4	--	--	12.5	--	--	--	--
Medicinal	--	2.2	--	--	--	8.3	--	14.3
Skunky	--	--	--	--	--	--	--	--
Fishy	--	--	--	--	4.5	--	--	--
Rubber	--	--	9.1	6.3	--	--	--	--
Plastic	2.4	--	--	--	--	--	--	--
Vague answers	2.4	4.3	--	12.5	--	--	--	14.3
Bases:	42	46	15	16	22	12	7	7

Q8F "Could you describe in your own words just what some of these 'odors' smell like?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	24.0%	16.7%	7.7%	8.0%	19.2%	23.4%	10.1%	20.7%	4.3%	20.0%
None here	8.0	6.9	15.4	--	15.4	12.8	3.8	11.3	8.7	7.7
Burning garbage/trash	4.0	13.9	7.7	8.0	7.7	8.5	2.5	6.0	4.3	4.6
"Burning"/Smoke	2.0	11.1	15.4	12.0	--	4.3	6.3	10.0	4.3	4.6
Exhaust	6.0	18.1	--	28.0	--	17.0	5.1	9.3	8.7	13.8
Burning flesh	8.0	--	7.7	--	3.8	--	3.8	--	4.3	--
"Rotten"	10.0	2.8	23.1	8.0	7.7	2.1	10.1	4.0	4.3	6.2
Sulphur/Eggs	6.0	--	--	12.0	7.7	4.3	7.6	9.3	17.4	12.3
"Chemical"	8.0	5.6	7.7	8.0	7.7	4.3	12.7	15.3	26.1	10.8
Gasoline	8.0	8.3	7.7	20.0	7.7	10.6	8.9	5.3	13.0	4.6
Tar/Asphalt	2.0	2.8	--	--	--	--	5.1	0.7	--	3.1
Sweetish/Soapy	2.0	1.4	7.7	--	--	--	1.3	0.7	--	1.5
Sewer/Manure	6.0	20.8	7.7	8.0	15.4	2.1	8.9	7.3	13.0	12.3
Fertilizer	4.0	--	--	--	11.5	--	1.3	2.0	4.3	3.1
Vegetable/Onions/Garlic	--	--	--	4.0	3.8	2.1	2.5	0.7	--	3.1
"Metallic"	--	--	--	--	--	--	--	--	--	1.5
Medicinal	--	1.4	--	--	--	--	--	--	--	--
Skunky	--	1.4	--	--	--	--	--	0.7	--	--
Fishy	6.0	10.0	--	--	--	--	5.1	10.0	8.7	40.0
Rubber	--	8.3	--	--	--	2.1	--	1.3	--	1.5
Plastic	--	--	--	--	--	--	--	--	--	--
Vague answers	4.0	1.4	7.7	4.0	3.8	2.1	10.1	5.3	4.3	9.2
Bases:	50	72	13	25	26	47	79	150	23	65

Q8F CONTINUED (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY EDUCATION: Of those with an education of _____, ____% said _____.

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	22.2%	14.3%	20.0%	15.4%	--	4.8%	--	16.7%
None here	--	4.1	20.0	--	--	4.8	--	--
Burning garbage/trash	11.1	2.0	--	--	11.1	9.5	--	--
"Burning"/Smoke	--	10.2	--	--	11.1	14.3	--	66.7
Exhaust	22.2	10.2	--	7.7	--	23.8	33.3	16.7
Burning flesh	--	--	--	--	11.1	--	--	--
"Rotten"	11.1	7.7	20.0	--	--	--	--	--
Sulphur/Eggs	22.2	10.2	--	23.1	--	9.5	--	--
"Chemical"	33.3	20.4	40.0	30.8	22.2	19.0	--	--
Gasoline	11.1	4.1	--	7.7	--	19.0	33.3	16.7
Tar/Asphalt	11.1	--	--	7.7	--	--	--	--
Sweetish/Soapy	--	--	--	7.7	--	--	--	--
Sewer/Manure	--	4.1	--	23.1	11.1	14.3	33.3	33.3
Fertilizer	--	4.1	--	--	11.1	4.8	--	--
Vegetable/Onions/Garlic	--	--	--	--	11.1	--	--	--
"Metallic"	--	2.0	--	--	--	--	--	--
Medicinal	--	--	--	--	--	--	--	--
Skunky	--	--	--	--	--	--	--	--
Fishy	--	20.0	--	10.0	11.1	10.0	--	--
Rubber	--	4.1	--	--	--	4.8	--	--
Plastic	--	--	--	--	--	--	--	--
Vague answers	--	6.1	--	7.7	11.1	--	--	16.7
Bases:	9	49	5	13	9	21	3	6

Q8G "Which one of these 'odors' do you smell most often in your area of the city?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	20.0%	27.8%	--	16.5%	15.9%	8.5%	17.4%	12.7%	14.4%	10.7%
None here	1.6	--	4.3	--	0.9	4.3	1.0	4.3	1.0	10.6
Burning garbage/trash	0.8	4.7	--	--	6.0	17.0	2.7	8.5	2.1	2.1
"Burning"/Smoke	3.9	14.0	12.8	5.6	11.1	12.8	5.2	13.7	6.2	12.8
Exhaust	3.1	16.3	2.1	22.2	--	6.4	2.7	16.2	1.0	10.6
Burning flesh	1.6	2.3	2.1	5.6	5.1	2.1	8.6	--	7.2	2.1
"Rotten"	15.5	--	10.6	--	14.5	6.4	13.7	0.9	16.5	--
Sulphur/Eggs	6.2	--	14.9	5.6	7.7	6.4	11.3	7.7	10.3	10.6
"Chemical"	12.4	7.0	17.0	11.1	8.5	4.3	12.0	11.1	13.4	12.8
Gasoline	10.1	2.3	10.6	5.6	8.5	8.5	7.2	9.4	5.2	4.3
Tar/Asphalt	0.8	2.3	4.3	--	0.9	--	0.7	0.9	2.1	--
Sweetish/Soapy	0.8	--	4.3	--	1.7	--	1.4	--	1.0	--
Sewer/Manure	10.9	14.0	10.6	11.1	7.7	10.6	3.8	3.4	10.3	2.1
Fertilizer	1.6	--	2.1	--	1.7	2.1	0.3	--	2.1	--
Vegetable/Onions/Garlic	1.6	--	4.3	--	3.4	2.1	2.1	--	3.1	4.3
"Metallic"	1.6	--	4.3	--	--	2.1	0.3	1.7	1.0	--
Medicinal	--	--	--	--	--	--	0.3	0.9	--	--
Skunky	0.8	--	--	--	--	--	0.7	--	--	2.1
Fishy	3.1	--	2.1	5.6	--	--	2.1	0.9	1.0	2.1
Rubber	0.8	--	--	--	2.6	--	0.7	0.9	2.1	--
Plastic	0.8	--	--	--	--	--	0.7	--	--	--
Vague answers	2.0	9.3	--	11.1	3.8	6.4	5.1	6.8	--	12.8
Bases:	129	43	47	18	117	47	291	117	97	47

Q8G CONTINUED (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY EDUCATION: Of those with an education of _____, ____% said _____.

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	17.5%	6.4%	53.2%	16.6%	--	16.7%	71.4%	--
None here	--	17.4	--	6.3	--	--	--	--
Burning garbage/trash	--	8.7	--	--	4.5	8.3	--	--
"Burning"/Smoke	9.5	8.7	--	6.3	--	16.7	--	14.3
Exhaust	4.8	17.4	--	18.8	--	16.7	--	28.6
Burning flesh	4.8	--	--	--	9.1	--	--	--
"Rotten"	14.3	2.2	6.7	6.3	--	--	--	--
Sulphur/Eggs	2.4	8.7	--	--	13.6	8.3	14.3	--
"Chemical"	19.0	15.2	20.0	6.3	31.8	16.7	--	--
Gasoline	4.8	8.7	--	6.3	--	8.3	14.3	28.6
Tar/Asphalt	6.7	2.2	--	--	--	--	--	--
Sweetish/Soapy	4.8	--	--	--	--	--	--	--
Sewer/Manure	4.8	--	6.7	--	18.2	--	--	--
Fertilizer	4.8	--	6.7	--	4.5	--	--	--
Vegetable/Onions/Garlic	--	--	6.7	6.3	--	--	--	--
"Metallic"	--	--	--	12.5	--	8.3	--	--
Medicinal	--	2.2	--	--	--	--	--	14.3
Skunky	2.4	--	--	--	--	--	--	--
Fishy	--	--	--	--	--	--	--	--
Rubber	2.4	--	--	--	4.5	--	--	--
Plastic	--	--	--	--	4.5	--	--	--
Vague answers	--	2.2	--	6.3	11.1	--	--	14.3
Bases:	42	46	15	16	22	12	7	7

Q8G "Which one of these 'odors' do you smell most often in your area of the city?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	40.0%	27.7%	53.9%	28.0%	18.4%	36.3%	37.7%	35.3%	30.7%	34.0%
None here	6.0	8.3	7.7	4.0	23.1	25.5	7.6	16.7	--	24.6
Burning garbage/trash	4.0	11.1	7.7	4.0	--	8.5	1.3	4.0	--	1.5
"Burning"/Smoke	2.0	6.9	--	8.0	--	2.1	3.8	7.3	4.3	1.5
Exhaust	6.0	11.1	--	20.0	7.7	17.0	1.3	9.3	4.3	9.2
Burning flesh	4.0	--	7.7	--	--	--	5.1	--	4.3	--
"Rotten"	10.0	1.4	15.4	4.0	11.5	2.1	8.9	2.7	4.3	3.1
Sulphur/Eggs	2.0	--	--	8.0	--	--	7.6	5.3	13.0	6.2
"Chemical"	6.0	2.8	--	4.0	--	--	11.4	6.7	26.1	3.1
Gasoline	8.0	4.2	--	8.0	3.8	4.3	3.8	4.0	8.7	1.5
Tar/Asphalt	2.0	2.8	--	--	--	--	5.1	--	--	1.5
Sweetish/Soapy	2.0	--	--	--	--	--	--	0.7	--	--
Sewer/Manure	2.0	16.7	--	8.0	7.7	--	5.1	3.3	4.3	4.6
Fertilizer	2.0	--	--	--	11.5	--	1.3	--	--	--
Vegetable/Onions/Garlic	--	--	--	4.0	--	2.1	--	--	--	3.1
"Metallic"	--	--	--	--	--	--	--	--	--	1.5
Medicinal	--	1.4	--	--	--	--	--	--	--	--
Skunky	--	1.4	--	--	--	--	--	--	--	--
Fishy	2.0	--	2.5	--	--	--	--	0.7	--	--
Rubber	--	2.8	1.3	--	11.1	2.1	--	0.7	--	1.5
Plastic	--	--	--	--	--	--	--	--	--	--
Vague answers	2.0	1.4	3.8	--	5.1	--	--	3.3	--	3.1
Bases:	50	72	13	25	26	47	79	150	23	65

Q8G CONTINUED (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY EDUCATION: Of those with an income of _____, ____% said _____.

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	33.4%	24.8%	28.9%	23.0%	44.5%	23.8%	43.2%	76.6%
None here	--	26.5	--	23.1	--	9.5	--	--
Burning garbage/trash	11.1	2.0	--	7.7	11.1	4.8	--	--
"Burning"/Smoke	--	6.1	--	7.7	11.1	4.8	--	--
Exhaust	11.1	6.1	20.0	--	--	33.3	33.3	16.7
Burning flesh	--	--	--	--	11.1	--	--	--
"Rotten"	11.1	4.1	20.0	--	--	--	--	--
Sulphur/Eggs	11.1	6.1	--	--	--	--	--	--
"Chemical"	11.1	8.2	20.0	15.4	22.2	14.3	--	--
Gasoline	--	--	--	--	--	--	--	16.7
Tar/Asphalt	11.1	--	--	--	--	--	--	--
Sweetish/Soapy	--	--	--	--	--	--	--	--
Sewer/Manure	--	2.0	--	15.4	--	9.5	33.5	--
Fertilizer	--	2.0	--	--	--	--	--	--
Vegetable/Onions/Garlic	--	--	--	--	--	--	--	--
"Metallic"	--	2.0	--	--	--	--	--	--
Medicinal	--	--	--	--	--	--	--	--
Skunky	--	--	--	--	--	--	--	--
Fishy	--	4.1	--	7.7	--	--	--	--
Rubber	--	--	--	--	--	--	--	--
Plastic	--	--	--	--	--	--	--	--
Vague answers	--	6.1	11.1	--	--	--	--	--
Bases:	9	49	5	13	9	21	3	6

Q14A "Do you own or are you purchasing this home (apartment or townhouse)?"
(BASED ON THOSE WHO SAW SOME DEGREE OF SERIOUSNESS IN Q10)

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	71.7%	65.8%	77.2%	78.6%	70.7%	76.6%	76.4%	64.1%	72.1%	58.8%
No	28.3	34.2	22.9	21.5	29.3	20.3	23.6	35.9	27.9	41.2
Don't Know	--	--	--	--	--	3.1	--	--	--	--
Bases:	166	76	57	28	133	64	331	167	111	51

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	85.4%	79.2%	80.0%	75.0%	82.8%	89.5%	87.5%	56.3%
No	14.6	20.9	20.0	25.0	17.2	10.5	12.5	31.3
Don't Know	--	--	--	--	--	--	--	12.5
Bases:	48	48	15	12	29	19	8	16

Q14B "Do you feel that odor pollution has reduced the value of your home property in any way, or not?" (IF "YES" TO Q14A)

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	16.0%	8.0%	34.1%	31.8%	23.4%	12.2%	21.3%	7.5%	21.3%	3.3%
No	68.1	78.0	56.8	54.5	57.4	73.5	68.4	85.0	61.3	96.7
Don't Know	16.0	14.0	9.1	13.6	19.1	15.2	10.3	7.5	17.5	--
Bases:	119	50	44	22	94	49	253	107	80	30

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	19.5%	10.5%	25.0%	--	25.0%	--	14.3%	--
No	68.3	76.3	66.7	88.9	58.3	82.4	85.7	77.8
Don't Know	12.2	13.2	8.3	11.1	16.7	17.6	--	22.2
Bases:	41	38	12	9	24	17	7	9

Q14C "What do you feel some of these bad effects upon your property may be?" (IF "YES" TO Q14B)

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S.		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Buyers wouldn't come if they smelled area	52.6%	25.0%	73.3%	14.3%	31.8%	33.3%	50.0%	50.0%	47.1%	100.0%
Ruins paint	15.8	--	13.3	14.3	18.2	33.3	24.1	12.5	11.8	--
Can't use yard	5.3	--	--	--	--	16.7	1.9	--	11.8	--
Stay inside because of odor; don't maintain house	5.3	--	6.7	14.3	13.6	--	--	--	--	--
Kills plants	--	--	--	--	4.5	--	--	--	--	--
"Vague"	15.9	50.0	13.4	42.9	18.2	--	7.4	25.0	23.5	--
Don't know/No response	15.8	25.0	13.6	14.3	16.7	16.7	11.8	12.5	25.0	--
Bases:	19	4	15	7	22	6	54	8	17	1

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Buyers wouldn't come if they smelled area	62.5%	50.0%	--	--	16.7%	--	100.0%	--
Ruins paint	--	25.0	33.3	--	16.7	--	--	--
Can't use yard	12.5	--	33.3	--	16.7	--	--	--
Stay inside because of odor; don't maintain house	--	--	--	--	--	--	--	--
Kills plants	--	--	--	--	--	--	--	--
"Vague"	--	25.0	66.6	--	50.0	--	--	--
Don't know/No response	25.0	--	16.7	--	--	--	--	--
Bases:	8	4	3	--	6	--	1	--

Q15 "Have you ever seriously considered moving away from here because of odor pollution in the air?"
(BASED ON THOSE WHO SAW SOME DEGREE OF SERIOUSNESS IN Q10)

BY EDUCATION: Of those with an education of _____, ____% said _____.

	Under 8th Grade		Junior High		1-3 Yrs. H.S		H.S. Graduate		1-3 Yrs. College	
	Test	Control	Test	Control	Test	Control	Test	Control	Test	Control
Yes	10.2%	9.2%	24.6%	28.6%	18.0%	14.1%	16.0%	7.8%	28.8%	19.6%
No	89.8	90.8	75.5	71.5	82.0	85.9	84.0	92.2	71.2	80.4
Bases:	166	76	57	28	133	64	331	167	111	51

	College Graduate		Post Graduate		Vocational		Refused	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	16.7%	6.3%	6.7%	--	20.7%	10.5	12.5	6.3%
No	83.4	93.8	93.3	100.0	79.3	89.5	87.5	93.8
Bases:	48	48	15	12	29	19	8	16

APPENDIX K

FINDINGS OF PUBLIC OPINION SURVEY OF RESIDENTS — SUMMARY, BY AGE, OF TEST AND CONTROL GROUPS FOR ALL CITIES COMBINED

Q1 "In general, how would you rate your area of the city as a place to live? Would you rate it ...?"

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Excellent	11.4%	7.7%	19.8%	22.4%	21.1%	34.6%	23.8%	32.8%
Good	38.6	46.2	41.2	42.4	39.0	31.6	33.2	29.2
Fair	31.4	43.6	31.9	26.1	25.9	23.6	30.5	28.8
Poor	12.9	2.6	4.9	6.1	7.9	7.2	7.4	5.8
Very Poor	4.3	--	1.6	3.0	6.1	2.5	4.7	2.2
Don't Know	--	--	0.5	--	--	0.4	0.4	0.7
Bases:	70	39	182	165	228	237	256	274

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Excellent	19.1%	24.0%	21.1%	27.6%	--%	--%
Good	40.5	34.5	40.4	37.2	50.0	66.7
Fair	28.0	30.1	27.5	21.5	50.0	33.3
Poor	8.6	7.4	6.0	6.9	--	--
Very Poor	3.1	3.5	2.8	4.6	--	--
Don't Know	0.8	0.4	2.3	1.9	--	--
Bases:	257	229	218	261	2	3

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(a) Crime

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	31.4%	12.8%	23.1%	12.1%	19.3%	11.8%	17.6%	14.2%
Somewhat Serious	27.1	28.2	21.4	26.1	22.8	21.5	19.5	16.4
Not Serious	41.4	51.3	53.3	57.6	55.7	63.3	59.8	67.2
Don't Know	--	7.7	2.2	4.2	2.2	3.4	3.1	2.2
Bases:	70	39	182	165	228	237	256	274

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Serious	16.0%	13.1%	12.4%	17.2%	-- %	33.3%
Somewhat Serious	20.2	16.6	14.7	16.1	--	33.3
Not Serious	60.7	68.6	69.3	63.2	100.0	33.3
Don't Know	3.1	1.7	3.7	3.4	--	--
Bases:	257	229	2	261	2	3

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(b) Water pollution

BY AGE: Of those whose age was _____, ____% said _____.

	18-24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	27.1%	15.4%	24.7%	15.2%	23.7%	14.3%	18.0%	9.5%
Somewhat Serious	14.3	10.3	12.1	14.5	11.0	11.8	14.1	11.7
Not Serious	51.4	69.2	56.0	61.8	57.0	67.9	60.9	70.8
Don't Know	7.1	5.1	7.1	8.5	8.3	5.9	7.0	8.0
Bases:	70	39	182	165	228	237	256	274

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Serious	17.9%	9.6%	12.4%	8.0%	-- %	33.3%
Somewhat Serious	13.6	7.4	13.8	8.8	--	--
Not Serious	58.8	73.8	64.2	64.4	100.0	66.7
Don't Know	9.7	9.2	9.6	18.8	--	--
Bases:	257	229	218	261	2	3

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(c) Air pollution

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	45.7%	28.2%	49.5%	23.0%	47.4%	16.5%	42.2%	13.5%
Somewhat Serious	30.0	28.2	14.3	21.8	26.8	21.1	27.7	19.7
Not Serious	22.9	43.6	33.5	53.3	24.6	59.5	28.1	63.1
Don't Know	1.4	--	2.7	1.8	1.3	3.0	2.0	3.6
Bases:	70	39	182	165	228	237	256	274

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Serious	40.1%	12.7%	30.3%	15.3%	50.0%	33.3%
Somewhat Serious	27.6	18.8	24.3	18.8	50.0	--
Not Serious	30.7	66.8	42.7	61.3	--	66.7
Don't Know	1.6	1.7	2.8	4.6	--	--
Bases:	257	229	218	261	2	3

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(d) Deterioration of streets, parks, sewerage, utilities, public buildings, etc.

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	24.3%	28.2%	20.9%	20.6%	22.4%	15.2%	18.0%	15.0%
Somewhat Serious	28.6	28.2	22.0	22.4	28.1	20.3	23.0	19.0
Not Serious	47.1	43.6	54.9	57.0	47.8	63.3	55.5	65.0
Don't Know	--	--	2.2	--	1.8	1.3	3.5	1.1
Bases:	70	39	182	165	228	237	256	274

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Serious	16.0%	14.8%	17.0%	8.4%	-- %	33.3%
Somewhat Serious	21.8	16.2	18.3	16.1	50.0	33.3
Not Serious	60.3	67.7	61.9	72.4	50.0	33.3
Don't Know	1.9	1.3	2.8	3.1	--	--
Bases:	257	229	218	261	2	3

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(e) Deterioration of shopping centers, stores, homes, industrial buildings, etc.

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	12.9%	7.7%	12.1%	11.5%	14.0%	8.0%	9.4%	9.9%
Somewhat Serious	18.6	17.9	18.1	13.9	22.4	14.8	17.2	16.4
Not Serious	65.7	74.4	67.0	73.9	62.7	76.4	71.1	73.4
Don't Know	2.9	--	2.7	0.6	0.9	0.4	2.3	0.4
Bases:	70	39	182	165	228	237	256	274

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Serious	9.3%	9.2%	8.3%	6.9%	-- %	-- %
Somewhat Serious	14.4	12.7	12.4	13.0	--	33.3
Not Serious	74.7	78.2	75.2	76.2	100.0	66.7
Don't Know	1.6	--	4.1	3.8	--	--
Bases:	257	229	218	261	2	3

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(f) Racial Tensions

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	15.7%	7.7%	9.3%	8.5%	12.7%	3.4%	7.8%	2.9%
Somewhat Serious	14.3	10.3	17.0	9.7	11.8	9.3	10.9	5.5
Not Serious	70.0	79.5	71.4	79.4	75.0	84.8	78.9	89.4
Don't Know	--	2.6	2.2	2.4	0.4	2.1	2.3	2.2
Bases:	70	39	182	165	228	237	256	274

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Serious	5.4%	2.6%	2.3%	3.8%	-- %	-- %
Somewhat Serious	3.9	6.1	6.4	5.7	--	33.3
Not Serious	88.7	89.5	87.6	85.1	100.0	33.3
Don't Know	1.9	1.7	3.7	5.4	--	33.3
Bases:	257	229	218	261	2	3

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(g) High taxes

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	34.3%	25.6%	37.4%	37.0%	45.2%	40.9%	44.1%	39.8%
Somewhat Serious	10.0	23.1	19.2	17.0	22.4	16.9	19.1	21.2
Not Serious	40.0	20.5	36.3	34.5	27.2	36.3	32.0	27.7
Don't Know	15.7	30.8	7.1	11.5	5.3	5.5	4.7	11.3
Bases:	70	39	182	165	228	237	256	274

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Serious	45.1%	37.6%	42.7%	43.7%	50.0%	66.7%
Somewhat Serious	18.7	22.3	21.6	13.8	50.0	--
Not Serious	30.4	31.4	28.4	31.4	--	--
Don't Know	5.8	8.7	6.9	11.1	--	33.3
Bases:	257	229	218	261	2	3

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(h) Inadequate public transportation

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	11.4%	15.4%	13.7%	18.2%	21.5%	21.1%	17.2%	20.8%
Somewhat Serious	14.3	12.8	13.7	15.8	12.3	13.1	16.8	10.6
Not Serious	70.0	61.5	66.5	60.6	62.3	60.3	59.4	61.7
Don't Know	4.3	10.3	6.0	4.8	3.9	5.1	6.6	6.9
Bases:	70	39	182	165	228	237	256	274

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Serious	13.2%	21.8%	12.8%	13.4%	50.0%	-- %
Somewhat Serious	17.5	11.4	12.4	14.2	--	66.7
Not Serious	60.3	60.3	68.3	68.2	50.0	33.3
Don't Know	8.9	6.1	6.4	4.2	--	--
Bases:	257	229	218	261	2	3

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGH THEIR AREAS HAD AIR POLLUTION - Q7A)

(a) Smoke or dust

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	79.2%	69.2%	87.5%	80.8%	88.2%	90.5%	84.8%	87.2%
No	20.8	30.8	11.7	19.2	10.7	9.5	13.6	12.8
Don't Know	--	--	0.8	--	1.1	--	1.6	--
Bases:	53	13	120	78	178	95	191	86

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Yes	87.7%	91.3%	77.6%	80.7%	100.0%	100.0%
No	8.2	7.2	19.6	14.8	--	--
Don't Know	4.1	1.4	2.8	4.5	--	--
Bases:	195	69	107	88	2	2

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...? (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(a) Smoke or dust

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	81.3%	75.0%	86.9%	89.7%	82.6%	91.3%	83.9%	79.0%
No	18.8	25.0	11.5	10.3	13.0	8.7	16.1	15.6
Don't Know	--	--	1.6	--	4.3	--	--	5.4
Bases:	16	24	61	87	46	138	62	186

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Yes	81.4%	79.2%	78.9%	66.9%	-- %	-- %
No	16.9	15.1	13.8	22.7	--	--
Don't Know	1.7	5.7	7.3	10.5	--	--
Bases:	59	159	109	172	--	--

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(b) Haze or fog

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	64.2%	61.5%	64.2%	56.4%	65.2%	53.7%	59.7%	59.3%
No	32.1	38.5	34.2	42.3	33.1	46.3	37.2	39.5
Don't Know	3.8	--	1.7	1.3	1.1	--	3.1	1.2
Bases:	53	13	120	78	178	95	191	86

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Yes	57.9%	58.0%	57.0%	55.7%	100.0%	100.0%
No	36.9	40.6	39.3	39.8	--	--
Don't Know	5.1	1.4	3.7	4.5	--	--
Bases:	195	69	107	88	2	2

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...? (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(b) Haze or fog

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	56.3%	45.8%	47.5%	43.7%	56.5%	45.7%	64.5%	45.7%
No	43.8	54.2	50.8	56.3	39.1	53.6	30.6	48.4
Don't Know	--	--	1.6	--	4.3	0.7	4.8	5.9
Bases:	16	24	61	87	46	138	62	186

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Yes	57.6%	47.8%	40.4%	44.8%	--%	--%
No	40.7	45.3	50.5	43.0	--	--
Don't Know	1.7	6.9	9.2	12.2	--	--
Bases:	59	159	109	172	--	--

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(c) Irritation of the eyes

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	79.2%	61.5%	82.5%	82.1%	74.7%	81.1%	72.8%	75.6%
No	17.0	38.5	17.5	17.9	22.5	18.9	24.6	23.3
Don't Know	3.8	--	--	--	2.8	--	2.6	1.2
Bases:	53	13	120	78	178	95	191	86

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Yes	65.1%	71.0%	64.5%	52.3%	100.0%	100.0%
No	30.3	29.0	33.6	42.0	--	--
Don't Know	4.6	--	1.9	5.7	--	--
Bases:	195	69	107	88	2	2

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(c) Irritation of the eyes

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	87.5%	83.3%	80.3%	77.0%	63.0%	77.5%	69.4%	67.2%
No	12.5	16.7	19.7	20.7	32.6	21.0	25.8	25.8
Don't Know	--	--	--	2.3	4.3	1.4	4.8	7.0
Bases:	16	24	61	87	46	138	62	186

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Yes	57.6%	60.4%	40.4%	40.7%	--%	--%
No	35.6	30.8	50.5	51.7	--	--
Don't Know	6.8	8.8	9.2	7.6	--	--
Bases:	59	159	109	172	--	--

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(d) Nose or throat irritation

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	64.2%	76.9%	78.3%	82.1%	68.0%	77.9%	70.2%	74.4%
No	34.0	23.1	21.7	17.9	28.1	21.1	25.1	22.1
Don't Know	1.9	--	--	--	3.9	1.1	4.7	3.5
Bases:	53	13	120	78	178	95	191	86

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Yes	68.2%	66.7%	60.7%	56.8%	100.0%	100.0%
No	28.2	29.0	35.5	34.1	--	--
Don't Know	3.6	4.3	3.7	9.1	--	--
Bases:	195	69	107	88	2	2

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(d) Nose or throat irritation

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	75.0%	58.3%	68.9%	77.0%	52.2%	76.8%	61.3%	68.3%
No	25.0	37.5	29.5	18.4	41.3	19.6	30.6	26.3
Don't Know	--	4.2	1.6	4.6	6.5	3.6	8.1	5.4
Bases:	16	24	61	87	46	138	62	186

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Yes	52.5%	59.1%	43.1%	41.3%	--%	--%
No	40.7	31.4	50.5	50.6	--	--
Don't Know	6.8	9.4	6.4	8.1	--	--
Bases:	59	159	109	172	--	--

Q8 "What do the words 'air pollution' mean to you. (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A)

(e) Noticeable odors

BY AGE: Of those whose age was _____. ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	98.1%	92.3%	94.2%	75.6%	92.1%	84.2%	91.6%	79.1%
No	1.9	7.7	5.8	24.4	7.3	15.8	7.3	20.9
Don't Know	--	--	--	--	0.6	--	1.0	--
Bases:	53	13	120	78	178	95	191	86

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Yes	87.7%	88.4%	84.1%	81.8%	50.0%	--%
No	10.3	11.6	12.1	14.8	50.0	50.0
Don't Know	2.1	--	3.7	3.4	--	50.0
Bases:	195	69	107	88	2	2

Q8 "What do the words 'air pollution' mean to you? (Please answer 'Yes' or 'No' to the following.) Do they mean...?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A)

(e) Noticeable odors

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	81.3%	83.3%	70.5%	79.3%	69.6%	73.9%	61.3%	55.4%
No	18.8	16.7	24.6	16.1	26.1	23.9	33.9	40.3
Don't Know	--	--	4.9	4.6	4.3	2.2	4.8	4.3
Bases:	16	24	61	87	46	138	62	186

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Yes	57.6%	52.2%	51.4%	39.5%	--%	--%
No	39.0	41.5	43.1	52.3	--	--
Don't Know	3.4	6.3	5.5	8.1	--	--
Bases:	59	159	109	172	--	--

Q8F "Could you describe in your own words just what some of these 'odors' smell like?"
(BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	19.2%	25.0%	15.0%	11.9%	17.1%	5.0%	15.4%	16.2%
None here	--	8.3	0.9	5.1	0.6	3.8	1.1	1.5
Burning garbage/trash	5.8	--	6.2	8.5	4.3	12.5	2.9	7.4
"Burning"/Smoke	--	16.7	10.6	22.0	9.8	13.8	10.9	14.7
Exhaust	--	16.7	3.5	16.9	1.2	'.5	2.9	22.1
Burning Flesh	5.8	--	6.2	--	5.5	--	4.0	1.5
"Rotten"	21.2	--	16.8	3.4	14.6	--	11.4	2.9
Sulphur/Eggs	17.3	8.3	19.5	13.6	14.6	13.8	13.1	16.2
"Chemical"	11.5	8.3	21.2	23.7	14.6	16.3	22.3	14.7
Gasoline	5.8	8.3	12.4	15.3	11.6	17.5	13.7	19.1
Tar/Asphalt	1.9	--	0.9	--	1.8	2.5	2.3	2.9
Sweetish/Soapy	3.8	--	1.8	--	3.0	1.3	2.9	--
Sewer/Manure	13.5	--	12.4	5.1	14.6	11.3	13.7	10.3
Fertilizer	5.8	--	3.5	--	3.0	1.3	2.9	2.9
Vegetable/Onions/Garlic	1.9	--	--	1.7	2.4	1.3	2.9	1.5
"Metallic"	--	--	0.9	3.4	1.2	1.3	1.1	1.5
Medicinal	--	--	--	1.7	0.6	--	--	--
Skunky	--	--	0.9	--	0.6	--	--	--
Fishy	3.8	--	2.7	--	3.7	5.0	3.4	2.9
Rubber	3.8	--	4.4	1.7	2.4	2.5	1.1	2.9
Plastic	--	--	2.7	--	1.2	--	--	1.5
Vague answers	3.8	16.7	1.8	5.1	3.7	6.3	1.7	7.4
Bases:	52	12	113	59	164	80	175	68

Q8F CONTINUED (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY AGE: Of those whose age was _____, ____% said _____.

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Don't Know/Can't describe	16.4%	13.1%	17.8%	9.7%	--%	--%
None here	--	--	1.1	--	--	--
Burning garbage/Trash	2.9	11.5	--	4.2	--	--
"Burning"/Smoke	7.6	19.7	4.4	12.5	--	--
Exhaust	4.7	9.8	2.2	23.6	--	--
Burning Flesh	5.3	3.3	2.2	--	--	--
"Rotten"	11.1	3.3	17.8	4.2	100.0	--
Sulphur/Eggs	14.0	18.0	10.0	11.1	100.0	--
"Chemical"	28.1	21.3	18.9	11.1	--	--
Gasoline	10.5	21.3	11.1	13.9	--	--
Tar/Asphalt	1.8	--	2.2	2.8	--	--
Sweetish/Soapy	2.9	--	2.2	--	--	--
Sewer/Manure	11.7	13.1	10.0	5.6	--	--
Fertilizer	2.9	1.6	3.3	--	--	--
Vegetable/Onions/Garlic	4.1	--	3.3	2.8	--	--
"Metallic"	0.6	1.6	1.1	1.4	--	--
Medicinal	--	3.3	--	1.4	--	--
Skunky	0.6	--	--	--	--	--
Fishy	2.9	1.6	1.1	--	--	--
Rubber	2.3	1.6	1.1	--	--	--
Plastic	2.3	--	--	--	--	--
Vague Answers	4.7	8.2	2.2	12.5	--	--
Bases:	171	61	90	72	1	--

Q8F "Could you describe in your own words just what some of these 'odors' smell like?" (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY AGE: Of those whose age was _____, ____% said _____

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Don't Know/Can't describe	7.7%	--%	14.0%	18.8%	3.1%	15.7%	5.3%	17.5%
None here	30.8	15.0	4.7	7.2	--	5.9	2.6	8.7
Burning garbage/trash	--	10.0	7.0	7.2	9.4	7.8	2.6	7.8
"Burning"/Smoke	7.7	10.0	7.0	13.0	3.1	9.8	10.5	6.8
Exhaust	--	20.0	7.0	17.4	--	7.8	10.5	8.7
Burning Flesh	--	--	2.3	--	--	--	5.3	--
"Rotten"	7.7	10.0	9.3	4.3	12.5	2.9	7.9	3.9
Sulphur/eggs	7.7	10.0	14.0	11.6	9.4	9.8	7.9	7.8
"Chemical"	7.7	10.0	14.0	11.6	12.5	17.6	13.2	17.5
Gasoline	--	--	7.0	5.8	15.6	4.9	10.5	7.8
Tar/Asphalt	--	--	2.3	--	3.1	--	5.3	3.9
Sweetish/Soapy	--	--	--	--	--	1.0	--	2.9
Sewer/Manure	7.7	5.0	14.0	14.5	21.9	7.8	5.3	8.7
Fertilizer	--	--	--	1.4	3.1	3.9	7.9	1.0
Vegetable/Onions/Garlic	--	--	--	--	--	2.0	--	--
"Metallic"	--	--	--	--	--	1.0	--	1.0
Medicinal	--	--	--	--	--	--	--	--
Skunky	--	--	--	1.4	--	1.0	--	--
Fishy	7.7	--	9.3	4.3	6.3	--	2.6	1.0
Rubber	--	5.0	2.3	4.3	6.3	2.0	2.6	3.9
Plastic	--	--	--	--	--	--	--	--
Vague Answers	7.7	20.0	4.7	5.8	9.4	8.8	13.2	2.9
Bases:	13	6	43	12	32	28	38	21

Q8F CONTINUED (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E.)

BY AGE: Of those whose age was _____, ____% said _____.

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	14.7%	21.7%	26.8%	22.1%	--%	--%
None Here	8.8	8.4	10.7	5.9	--	--
Burning Garbage/trash	5.9	6.0	1.8	4.4	--	--
"Burning"/Smoke	--	10.8	1.8	5.9	--	--
Exhaust	5.9	16.9	5.4	22.1	--	--
Burning Flesh	11.8	--	7.1	--	--	--
"Rotten"	8.8	6.0	10.7	2.9	--	--
Sulphur/Eggs	5.9	10.8	3.6	--	--	--
"Chemical"	23.5	7.2	10.7	5.9	--	--
Gasoline	2.9	13.3	10.7	8.8	--	--
Tar/Asphalt	5.9	2.4	--	--	--	--
Sweetish/Soapy	2.9	--	3.6	--	--	--
Sewer/Manure	8.8	7.2	1.8	19.1	--	--
Fertilizer	2.9	2.4	5.4	--	--	--
Vegetable/Onions/Garlic	--	2.4	--	1.5	--	--
"Metallic"	--	--	--	--	--	--
Medicinal	--	--	--	1.5	--	--
Skunky	--	--	--	--	--	--
Fishy	--	4.8	3.6	2.9	--	--
Rubber	--	2.4	--	1.5	--	--
Plastic	--	--	--	--	--	--
Vague Answers	--	--	3.6	4.4	--	--
Bases:	34	10	56	19	--	--

Q8G "Which one of these 'odors' do you smell most often in your area of the city?" (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY AGE: Of those whose age was _____. ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	30.8%	25.0%	17.5%	11.6%	15.1%	8.3%	16.9%	20.3%
None here	--	16.7	--	10.2	1.2	8.8	1.7	5.9
Burning garbage/trash	5.8	--	2.7	8.5	3.0	10.0	1.1	7.4
"Burning"/Smoke	--	16.7	4.4	15.3	9.1	7.5	9.1	10.3
Exhaust	1.9	8.3	0.9	10.2	1.8	17.5	1.7	14.7
Burning Flesh	7.7	--	8.0	1.7	6.1	1.3	4.6	1.5
"Rotten"	21.2	--	15.9	--	15.2	1.3	12.0	1.5
Sulphur/eggs	7.7	--	14.2	10.2	8.5	5.0	8.6	5.9
"Chemical"	5.8	8.3	13.3	13.6	7.3	10.0	15.4	10.3
Gasoline	3.8	8.3	8.8	5.1	6.1	11.3	9.7	5.9
Tar/Asphalt	--	--	--	--	1.2	1.3	2.3	--
Sweetish/Soapy	3.8	--	--	--	1.8	--	1.1	--
Sewer/Manure	7.7	--	6.2	--	7.9	8.8	7.4	2.9
Fertilizer	--	--	0.9	--	2.4	--	1.1	1.5
Vegetable/Onions/Garlic	1.9	--	0.9	1.7	1.8	1.3	2.3	1.5
"Metallic"	--	--	--	3.4	0.6	1.3	1.1	1.5
Medicinal	--	--	--	1.7	0.6	--	--	--
Skunky	--	--	0.9	--	1.2	--	--	1.5
Fishy	--	--	1.8	--	3.0	1.3	1.1	1.5
Rubber	--	--	1.8	1.7	1.8	--	1.7	--
Plastic	--	--	0.9	--	0.6	--	--	--
Vague Answers	1.9	16.7	0.9	5.1	3.7	5.0	1.1	5.9
Bases:	52	12	113	59	164	80	175	68

Q8G CONTINUED (BASED ON THOSE WHO THOUGHT THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY AGE: Of those whose age was _____, ____% said _____.

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Don't Know/Can't Describe	17.0%	10.9%	17.9%	15.3%	--%	--%
None Here	1.2	3.3	2.2	--	--	--
Burning garbage/trash	2.9	9.8	--	2.8	--	--
"Burning"/Smoke	5.8	16.4	3.3	11.1	--	--
Exhaust	2.9	9.8	3.3	22.2	--	--
Burning Flesh	7.0	1.6	2.2	--	--	--
"Rotten"	9.9	1.6	15.6	4.2	--	--
Sulphur/Eggs	7.0	6.6	10.0	6.9	100.0	--
"Chemical"	16.4	11.5	15.6	6.9	--	--
Gasoline	5.8	6.6	8.9	8.3	--	--
Tar/Asphalt	1.2	--	1.1	2.8	--	--
Sweetish/Soapy	2.3	--	1.1	--	--	--
Sewer/Manure	7.0	11.5	7.8	2.8	--	--
Fertilizer	1.8	--	2.2	--	--	--
Vegetable/Onions/Garlic	3.5	--	3.3	1.4	--	--
"Metallic"	0.6	1.6	2.2	1.4	--	--
Medicinal	--	1.6	--	1.4	--	--
Skunky	0.6	--	--	--	--	--
Fishy	1.8	1.6	--	--	--	--
Rubber	0.6	--	1.1	--	--	--
Plastic	0.6	--	--	--	--	--
Vague Answers	4.1	6.6	2.2	12.5	--	--
Bases:	171	61	90	72	1	--

Q8G "Which one of these 'odors' do you smell most often in your area of the city?"
(BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY AGE: Of those whose age was _____. ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Don't know/Can't describe	30.7%	33.0%	43.3%	27.8%	24.9%	36.4%	23.7%	25.3%
None here	15.4	15.0	--	18.8	6.3	20.6	10.5	23.3
Burning garbage/trash	--	5.0	4.7	5.8	3.1	3.9	--	6.8
"Burning"/Smoke	7.7	10.0	4.7	7.2	3.1	4.9	2.6	3.9
Exhaust	7.7	20.0	4.7	13.0	3.1	7.8	5.3	8.7
Burning Flesh	--	--	2.3	--	3.1	--	2.6	--
"Rotten"	7.7	10.0	9.3	1.4	9.4	2.9	7.9	1.9
Sulphur/eggs	--	10.0	7.0	4.3	9.4	2.9	7.9	3.9
"Chemical"	7.7	--	11.6	2.9	6.3	7.8	10.5	7.8
Gasoline	--	--	2.3	1.4	6.3	1.0	7.9	3.9
Tar/Asphalt	--	--	2.3	--	3.1	--	5.3	1.9
Sweetish/Soapy	--	--	--	--	--	--	--	1.0
Sewer/Manure	7.7	5.0	7.8	5.8	9.4	3.9	--	5.8
Fertilizer	--	--	--	--	--	1.0	7.9	--
Vegetable/Onions/Garlic	--	--	--	--	--	1.0	--	--
"Metallic"	--	--	--	--	--	1.0	--	1.0
Medicinal	--	--	--	--	--	--	--	--
Skunky	--	--	--	--	--	1.0	--	--
Fishy	7.7	--	--	2.9	3.1	--	--	1.0
Rubber	--	--	--	2.9	3.1	1.0	2.6	1.9
Plastic	--	--	--	--	--	--	--	--
Vague Answers	7.7	10.0	--	5.8	6.3	2.9	5.3	1.9
Bases:	13	8	43	23	32	39	38	29

Q8G CONTINUED (BASED ON THOSE WHO DID NOT THINK THEIR AREAS HAD AIR POLLUTION - Q7A. ALSO BASED ON THOSE WHO SAID 'ODOR' WAS A FACTOR IN AIR POLLUTION - Q8E)

BY AGE: Of those whose age was _____, ____% said _____.

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Don't Know/Can't describe	32.5%	36.3%	41.0%	36.8%	--%	--%
None here	8.8	13.3	8.9	10.3	--	--
Burning Garbage/trash	5.9	4.8	1.8	4.4	--	--
"Burning"/Smoke	--	7.2	1.8	4.4	--	--
Exhaust	8.8	10.8	1.8	17.6	--	--
Burning Flesh	8.8	--	5.4	--	--	--
"Rotten"	5.9	2.4	12.5	1.5	--	--
Sulphur/Eggs	2.9	6.0	1.8	--	--	--
"Chemical"	14.7	4.8	8.9	1.5	--	--
Gasoline	--	6.0	7.1	4.4	--	--
Tar/Asphalt	5.9	1.2	--	--	--	--
Sweetish/Soapy	--	--	1.8	--	--	--
Sewer/Manure	2.9	3.6	1.8	13.2	--	--
Fertilizer	2.9	--	1.8	--	--	--
Vegetable/Onions/Garlic	--	2.4	--	1.5	--	--
"Metallic"	--	--	--	--	--	--
Medicinal	--	--	--	1.5	--	--
Skunky	--	--	--	--	--	--
Fishy	--	1.2	1.8	--	--	--
Rubber	--	--	--	--	--	--
Plastic	--	--	--	--	--	--
Vague Answers	--	--	1.8	2.9	--	--
Bases:	34	27	56	29	--	--

Q14A "Do you own or are you purchasing this home (apartment or townhouse)?"
(BASED ON THOSE WHO SAW SOME DEGREE OF SERIOUSNESS IN Q10)

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	33.9%	21.1%	60.9%	59.7%	74.6%	74.7%	83.1%	73.1%
No	66.1	78.9	39.1	40.3	25.4	24.2	16.9	26.9
Don't Know	--	--	--	--	--	1.1	--	--
Bases:	56	19	128	72	193	95	189	108

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Yes	79.6%	77.8%	87.0%	68.7%	100.0%	--%
No	20.4	22.3	13.0	30.3	--	--
Don't know	--	--	--	1.0	--	100.0
Bases:	196	81	131	99	1	2

Q14B "Do you feel that odor pollution has reduced the value of your home property in any way, or not?" (IF "YES" TO Q14A)

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	26.3%	--%	25.6%	9.3%	27.1%	9.9%	22.9%	6.3%
No	57.9	100.0	60.3	88.4	63.2	83.1	61.8	83.5
Don't Know	10.6	--	10.7	2.3	9.8	7.0	15.2	10.1
Bases:	19	4	78	43	144	71	157	79

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Yes	17.3%	14.3%	14.0%	7.4%	100.0%	-- %
No	69.2	71.4	71.9	75.0	--	--
Don't Know	13.5	14.3	14.1	17.6	--	--
Bases:	156	63	114	68	1	--

Q14C "What do you feel some of these bad effects upon your property may be?" (IF 'YES' TO Q14B)

BY AGE: Of those whose age was _____, ____% said _____.

	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
	Test	Control	Test	Control	Test	Control	Test	Control
Buyers wouldn't come if they smelled area	40.0%	--%	60.0%	25.0%	46.2%	28.6%	55.6%	40.0%
Ruins paint	20.0	--	15.0	25.0	20.5	42.9	16.7	--
Can't use yard	--	--	10.0	--	--	14.3	5.6	--
Stay inside because of odor; don't maintain house	--	--	--	--	--	--	--	--
Kills plants	--	--	--	--	2.6	--	--	--
"Vague"	--	--	10.0	25.0	12.8	14.3	13.9	20.0
Don't know/No response	40.0	--	10.0	25.0	17.9	--	13.9	40.0
Bases:	5	--	20	4	39	7	36	5

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Buyers wouldn't come if they smelled area	44.4%	33.3%	31.3%	60.0%	100.0	--
Ruins paint	22.2	11.1	6.3	--	--	--
Can't use yard	3.7	--	12.5	--	--	--
Stay inside because of odor; don't maintain house	11.1	11.1	12.5	--	--	--
Kills plants	--	--	--	--	--	--
"Vague"	14.8	33.3	31.3	40.0	--	--
Don't know/No response	7.4	--	12.6	--	--	--
Bases:	27	9	16	5	1	--

Q15 "Have you ever seriously considered moving away from here because of odor pollution in the air?"
(BASED ON THOSE WHO SAW SOME DEGREE OF SERIOUSNESS IN Q10)

BY AGE: Of those whose age was _____, ____% said _____.

	Test	18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years	
		Test	Control	Test	Control	Test	Control	Test	Control
Yes		25.0%	21.1%	21.9%	9.7%	17.6%	15.8%	18.5%	9.3%
No		75.0	78.9	78.1	90.3	82.4	84.3	81.5	90.7
Bases:		56	19	128	72	193	95	189	108

	55 - 64 years		65 or over		Refused	
	Test	Control	Test	Control	Test	Control
Yes	15.3%	12.3%	9.2%	7.1%	100.0%	--%
No	84.7	87.7	90.8	92.9	--	100.0%
Bases:	196	81	131	99	1	2

APPENDIX L

FINDINGS OF PUBLIC OPINION SURVEY OF BUSINESSMEN — SUMMARY OF TEST AND CONTROL GROUPS FOR ALL CITIES COMBINED

BUSINESSMEN - BY "GROUP"
TEST VS. CONTROL - FOR ALL CITIES

X^2 Ratings

* Significant to 5% level
** Significant to 1% level
*** Not significant at 5% level
\# Chi square test not applicable

	Test	Control	Total
Q1 *** "In general, how would you rate this area of the city for your business? Would you rate it...?"			
Excellent	19.6%	18.5%	19.0%
Good	44.9	45.1	45.0
Fair	28.3	29.0	28.7
Poor	4.3	3.7	4.0
Very Poor	2.2	2.5	2.3
Don't Know	0.7	1.2	1.0
Bases:	138	162	300

Q2A *** "Can you think of any disadvantages — things you don't like — about operating your business in this area of the city?"			
No	60.1%	63.0%	61.7%
Yes	39.9	35.8	37.7
Don't Know	--	1.2	0.7
Bases:	138	162	300

		Test	Control	Total
Q2B	"If yes, what are they?"			
***				
	Theft	21.8%	12.1%	16.8%
	Parking	12.7	22.4	17.7
	No money in area	12.7	12.1	12.4
	Traffic	9.1	17.2	13.3
	Dust/Dirt	9.1	3.4	6.2
	Tearing down for urban renewal	7.3	10.3	8.8
	Odors	7.3	3.4	5.3
	Area deteriorating	5.5	8.6	7.1
	Vermin	3.6	6.9	5.3
	Bad area for my product/service	3.6	6.9	5.3
	Racial tension	3.6	--	1.8
	"Bad conditions"	1.8	5.2	3.5
	Costs/Rents	1.8	3.4	2.7
	Need to expand	1.8	1.7	1.8
	Public transportation	1.8	--	0.9
	Garbage collection	1.8	--	0.9
	Juvenile delinquency	--	10.3	5.3
	Shortage of skilled help	--	5.3	2.7
	Other	3.6	--	1.8
	Bases:	55	58	113

Q3	"Here are a few problems which different business areas are facing. How would you rate each of these for this area of the city today in terms of being serious, somewhat serious, or not serious?"			
	A. Crime			
***	Serious	21.7%	27.2%	24.7%
	Somewhat serious	27.5	19.8	23.3
	Not serious	50.0	49.4	49.7
	Don't know	0.7	3.7	2.3
	B. Water pollution			
***	Serious	15.2	16.7	16.0
	Somewhat serious	9.4	5.6	7.3
	Not serious	70.3	62.3	66.0
	Don't know	5.1	15.4	10.7
	Bases:	138	162	300

Q3 (Cont'd)		Test	Control	Total
	C. Air pollution			
**	Serious	39.9%	19.8%	29.0%
	Somewhat serious	20.3	14.2	17.0
	Not serious	39.1	61.1	51.0
	Don't know	0.7	4.9	3.0
	D. Deterioration of streets, parks, sewer-			
***	age, utilities, public buildings, etc.			
	Serious	21.7	15.4	18.3
	Somewhat serious	20.3	17.9	19.0
	Not serious	57.2	63.6	60.7
	Don't know	0.7	3.1	2.0
	E. Deterioration of shopping centers,			
***	stores, homes, industrial buildings, etc.			
	Serious	18.8	13.6	16.0
	Somewhat serious	17.4	17.9	17.7
	Not serious	62.3	63.0	62.7
	Don't know	1.4	5.6	3.7
	F. Racial tensions			
***	Serious	11.6	8.6	10.0
	Somewhat serious	5.8	8.0	7.0
	Not serious	81.9	81.5	81.7
	Don't know	0.7	1.9	1.3
	G. High insurance premiums			
***	Serious	34.8	34.0	34.3
	Somewhat serious	9.4	17.3	13.7
	Not serious	44.2	36.4	40.0
	Don't know	11.6	12.3	12.0
	H. Inadequate parking facilities			
***	Serious	26.1	30.9	28.7
	Somewhat serious	15.2	17.3	16.3
	Not serious	58.0	50.6	54.0
	Don't know	0.7	1.2	1.0
	I. Inadequate public transportation			
***	Serious	14.5	17.3	16.0
	Somewhat serious	10.1	8.6	9.3
	Not serious	72.5	67.3	69.7
	Don't know	2.9	6.8	5.0
	Bases:	138	162	300

		Test	Control	Total
Q4A *	"Have you ever requested some authority or agency to take action concerning any problem in this area of the city?"			
	Yes	37.7%	26.5%	31.7%
	No	62.3	73.5	68.3
	Bases:	138	162	300
Q4B #	"If 'Yes', what was the problem?"			
	Theft	25.0	25.6	25.3
	Vandalism	13.5	7.0	10.5
	Derelict buildings	9.6	2.3	6.3
	Parking	7.7	14.0	10.5
	Street lights	5.8	7.0	6.3
	Street repair	3.8	9.3	6.3
	"Disturbances"	3.8	7.0	5.3
	Garbage/Trash	3.8	4.7	4.2
	Traffic	3.8	2.3	3.2
	Water pollution	3.8	2.3	3.2
	Sewerage	3.8	--	2.1
	Phone problems	1.9	2.3	2.1
	Taxes	1.9	2.3	2.1
	Fire	1.9	--	1.1
	Air pollution	1.9	--	1.1
	Asked for public housing	1.9	--	1.1
	Narcotics	--	2.3	1.1
	Public transportation	--	2.3	1.1
	Other	1.9	4.7	3.2
	Refused	3.8	11.6	7.4
	Bases:	52	43	95

		Test	Control	Total
Q4C #	"If 'Yes', to whom did you actually make the request?"			
	Police	44.2%	55.8%	49.5%
	City Hall	25.0	11.6	18.9
	Public Works	7.7	9.3	8.4
	Public Utilities	3.8	4.7	4.2
	Pollution Control	1.9	2.3	2.1
	Health	1.9	--	1.1
	"Petition"	--	4.7	2.1
	Planning Commission	--	2.3	1.1
	Other	3.8	7.0	5.3
	Refused	13.5	16.3	14.7
	Bases:	52	43	95
Q5 ***	"How long have you operated a business in this area of the city?"			
	Less than 6 months	3.6	4.3	4.0
	6 months - 1 year	3.6	3.1	3.3
	1 - 2 years	9.4	6.2	7.7
	3 - 5 years	15.9	13.6	14.7
	6 - 10 years	16.7	17.9	17.3
	11 - 15 years	15.9	16.0	16.0
	16 - 20 years	12.3	13.6	13.0
	21 - 25 years	8.0	9.3	8.7
	26 - 30 years	3.6	5.6	4.7
	Over 30 years	8.0	8.0	8.0
	Bases:	138	162	300
Q6A ***	"Have you thought seriously about moving to another area, or not?"			
	Yes	25.4	19.8	22.3
	No	74.6	80.2	77.7
	Bases:	138	162	300

		Test	Control	Total
Q6B	"If 'Yes', why is that?"			
#				
	Area deteriorating	25.7%	34.4%	29.9%
	Crime	20.0	3.1	11.9
	No money/Move to richer area	14.3	18.8	16.4
	Need to enlarge	11.4	3.1	7.5
	"Personal"	8.6	9.4	9.0
	No market here for product/service	5.7	18.8	11.9
	Public transportation	5.7	6.3	6.0
	Building sold	5.7	6.3	6.0
	Parking	5.7	3.1	4.5
	Vague answers	5.7	--	3.0
	Racial tension	2.9	3.1	3.0
	Lease problems	2.9	3.1	3.0
	Bases:	35	32	67

Q7A	"Is there air pollution in this area of the city			
**	at any time during the year, or not?"			
	Yes	65.9	25.9	4.3
	No	32.6	72.2	54.0
	Don't know	1.4	1.9	1.7
		138	162	300

		Test	Control	Total
Q7B ***	"When do you notice it the most: during the daytime; at nighttime; during the week; on weekends; during some months of the year; or just when?"			
	Day	19.8%	14.3%	18.0%
	Morning	12.1	11.9	12.0
	Afternoon	2.2	9.5	4.5
	Evening	6.6	2.4	5.3
	Weekdays	--	--	--
	Weekends	--	--	--
	Spring	1.1	--	0.8
	Summer	9.9	21.4	13.5
	Fall	3.3	9.5	5.3
	Winter	6.6	7.1	6.8
	Still air	2.2	2.4	2.3
	Depends on breeze	8.8	11.9	9.8
	Depends on weather	8.8	7.1	8.3
	"When _____ happens"	5.5	4.8	5.3
	Occasionally	5.5	2.4	4.5
	Most of the time	29.7	16.7	25.6
	Don't know	3.3	2.4	4.5
	Bases:	91	42	133

		Test	Control	Total
Q8	"What do the words 'air pollution' mean to you? Please answer 'Yes' or 'No' to the following. Do they mean...?"			
	A. Smoke or dust			
***	Yes	89.1%	93.2%	91.3%
	No	9.4	4.9	7.0
	Don't know	1.4	1.9	1.7
	B. Haze or fog			
***	Yes	47.1	46.9	47.0
	No	52.2	51.9	52.0
	Don't know	0.7	1.2	1.0
	C. Irritation of the eyes			
***	Yes	68.8	69.8	69.3
	No	28.3	26.5	27.3
	Don't know	2.9	3.7	3.3
	D. Nose or throat irritation			
***	Yes	73.2	69.1	71.0
	No	23.2	27.2	25.3
	Don't know	3.6	3.7	3.7
	E. Noticeable odors			
**	Yes	87.0	71.6	78.7
	No	13.0	27.2	20.7
	Don't know	--	1.2	0.7
	Bases:	138	162	300

		Test	Control	Total
Q8F **	"Could you describe in your own words just what some of these 'odors' smell like?"			
	Chemical	20.0%	8.6%	14.4%
	"None here"	13.3	12.1	12.7
	Sewage	10.0	5.2	7.6
	Rotten flesh	10.0	3.4	6.8
	Garbage	9.2	5.2	7.2
	"Burning"	8.3	12.1	10.2
	Exhaust	7.5	27.6	17.4
	Rotten eggs/Sulphur	7.5	5.2	6.4
	Tar/Asphalt	6.7	4.3	5.5
	Rendering	6.7	3.4	5.1
	"Metallic"	5.0	4.3	4.7
	Oil smoke	4.2	4.3	4.2
	Food cooking	3.3	4.3	3.8
	Bay/River/Swamp	3.3	2.6	2.9
	"Sour"	3.3	--	1.7
	"Rotten"	2.5	1.7	2.1
	"Sweet"	2.5	0.9	1.7
	Fishy	2.5	--	1.3
	Vague	2.5	--	1.3
	Burning flesh	1.7	1.7	1.7
	Rubber	0.8	7.8	4.2
	Paper mill	0.8	1.7	1.3
	Don't know	8.3	12.9	10.6
	Bases:	120	116	236

		Test	Control	Total
Q8G **	"Which one of these 'odors' do you smell most often in this area of the city?"			
	None here	20.0%	37.1%	28.4%
	Chemical	15.0	0.9	8.1
	Rotten flesh	10.0	0.9	5.5
	Sewage	6.7	4.3	5.5
	Rotten eggs/Sulphur	6.7	4.3	5.5
	Exhaust	5.0	23.3	14.0
	Tar/Asphalt	5.0	1.7	3.4
	"Burning"	3.3	4.3	3.8
	Food cooking	3.3	2.6	3.0
	"Metallic"	3.3	1.7	2.5
	Garbage	2.5	1.7	2.1
	"Sweet"	2.5	0.9	1.7
	"Sour"	2.5	--	1.3
	Bay/River/Swamp	1.7	--	0.8
	"Rotten"	0.8	0.9	0.8
	Burning flesh	0.8	--	0.4
	Vague	0.8	--	0.4
	Oil smoke	--	3.4	1.7
	Rubber	--	2.6	1.3
	Paper mill	--	0.9	0.4
	Don't know	8.3	7.8	8.1
	Bases:	120	116	236

		Test	Control	Total
Q9A **	"In this area of the city, does odor pollution affect your business very much, some, or not at all?"			
	Very much	1.4%	-- %	0.7%
	Some	8.7	1.9	5.0
	Not at all	87.7	97.5	93.0
	Don't know	2.2	0.6	1.3
	Bases:	138	162	300
Q9B #	"If 'Very much' or 'Some', could you tell me where this/these odor(s) originate, that is, who or what causes them?"			
	Chemical plant	28.6	--	23.5
	Sewage	28.6	--	23.5
	Smelting	28.6	--	23.5
	Oil refinery	28.6	--	23.5
	Slaughterhouse	14.3	--	11.8
	"Factories"	14.3	--	11.8
	Dump	7.1	--	5.9
	Exhaust	7.1	66.7	17.7
	Restaurant	--	33.3	5.9
	Don't know	35.7	--	29.4
	Bases:	14	3	17
Q10 **	"Which one of the following statements do you think best describes the general "ODOR" in this area of the city in recent years?"			
	Not serious	37.0	70.4	55.0
	Becoming more serious	19.6	11.1	15.0
	Becoming less serious	6.5	2.5	4.3
	Continuously serious	21.0	3.7	11.7
	Occasionally serious	15.2	12.3	13.7
	Don't know	0.7	--	0.3
	Bases:	138	162	300

(Q11-Q15 are based on those answering everything but "Not Serious" in Q10)

		Test	Control	Total
Q11 ***	"Which one of the following statements do you think best describes the efforts that are being made to control odor pollution in this area?"			
	No effort	20.7%	22.9%	21.5%
	Very little effort	16.1	20.8	17.8
	Some effort	39.1	39.6	39.3
	A great deal of effort	11.5	4.2	8.9
	Don't know	12.6	12.5	12.6
	Bases:	87	48	135
Q12 ***	"Do you feel that more money should be spent to control odor pollution in this area, or not?"			
	Yes	67.8	58.3	64.4
	No	14.9	20.8	17.0
	Don't know	17.2	20.8	18.5
	Bases:	87	48	135
Q13 ***	"When offensive odors from outside sources get into your business establishment, what do you do, if anything, to reduce or eliminate them?"			
	No problem	20.7	35.4	25.9
	Nothing	52.9	31.3	45.2
	Close doors, etc.	13.7	18.8	15.5
	Spray	3.4	4.2	3.7
	Air condition/Ventilate	11.5	12.5	11.9
	Open doors, etc.	6.9	8.5	8.2
	Bases:	87	48	135

		Test	Control	Total
Q14A ***	"Do you feel odor pollution has had a bad effect upon your business operations in any way, or not?"			
	Yes	9.2%	2.1%	6.9%
	No	89.7	97.9	92.6
	Don't know	1.1	--	0.7
	Bases:	87	48	135
Q14B #	"If 'Yes', what do you feel some of these bad effects upon your business operations may be?" (PROBE!! Has this affected income? By what percentage, etc.?)			
	6 - 10%	37.5	--	33.3
	21 - 25%	12.5	--	11.1
	46 - 50%	12.5	--	11.1
	Don't know	37.5	100.0	44.4
	Customers don't like smell	50.0	100.0	55.6
	Ruins paint	12.5	--	11.1
	Bases:	8	1	9
Q15 ***	"Have you ever seriously considered moving your business away from this area because of odor pollution in the air?"			
	Yes	5.7	--	3.7
	No	94.3	100.0	96.3
		87	48	135

	Test	Control	Total
Q16A "What is your position with this business?"			
#			
Professional (dentist, etc.)	2.9%	2.5%	2.7%
Owner/Manager	92.0	95.7	94.0
Clerk/Bookkeeper	4.3	0.6	2.3
Other (wife, etc.)	0.7	1.2	1.0
Bases:	138	162	300
Q16B "Type of business."			
***			
Automotive	17.4	6.8	11.7
Restaurant/Hotel	11.6	8.6	10.0
Food sales	10.1	9.9	10.0
Florist/Jeweler/etc.	8.7	14.2	11.7
Beauty/Barber shop	8.7	8.6	8.7
Bar/Liquor store	6.5	3.7	5.0
Drug store	5.1	3.7	4.3
Clothing	4.3	9.3	7.0
Home furnishing	4.3	7.4	6.0
Hardware, etc.	4.3	5.6	5.0
Laundry/Cleaners	3.6	5.6	4.7
Appliance sales/repair	2.9	3.7	3.3
Professional office	2.9	2.5	2.7
Bakery/Candy store	2.9	--	1.3
School (private/play school/etc.)	1.4	2.5	2.0
Light manufacturing	1.4	1.2	1.3
Transportation (taxis)	1.4	--	0.7
Department/General store	0.7	3.7	2.3
Mortician	0.7	--	0.3
Construction	--	1.9	1.0
Publishing	--	0.6	0.3
Entertainment (movie)	--	0.6	0.3
Bases:	138	162	300

		Test	Control	Total
Q17 ***	"Including yourself, what is the total number of people who work in this establishment?"			
	1	9.4%	15.4%	12.7%
	2	17.4	17.3	17.3
	3	21.0	21.0	21.0
	4	13.0	13.0	13.0
	5	12.3	6.8	9.3
	6	4.3	7.4	6.0
	7	1.4	2.5	2.0
	8	2.2	3.1	2.7
	9	1.4	1.2	1.3
	10	2.2	2.5	2.3
	11-15	5.1	1.2	3.0
	16-20	4.3	2.5	3.3
	21-25	2.9	0.6	1.7
	26-30	--	1.2	0.7
	31-35	0.7	0.6	0.7
	36-40	--	1.2	0.7
	41-50	0.7	--	0.3
	50 and over	1.4	0.6	1.0
	Don't know	--	0.6	0.3
	No response	--	1.2	0.7
	Bases:	138	162	300

APPENDIX M

FINDINGS OF PUBLIC OPINION SURVEY OF RESIDENTS — SUMMARY OF TEST AND CONTROL GROUPS BY INDIVIDUAL CITIES

Q1 "In general, how would you rate <u>your area of the city</u> as a place to live? Would you rate it...?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Excellent	9.8%	25.4%	13.7%	7.4%	35.4%	73.7%	22.4%	18.3%
Good	48.6	46.9	40.6	37.5	45.1	20.6	39.4	42.2
Fair	35.8	21.5	33.7	41.5	17.7	5.7	31.2	32.8
Poor	2.9	4.5	8.0	9.7	0.6	--	4.1	3.9
Very Poor	2.9	--	2.9	1.7	1.1	--	1.2	2.2
Don't Know	--	1.1	1.1	1.7	--	--	1.8	0.6
Bases:	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Excellent	35.4%	48.6%	16.0%	19.3%	9.6%	1.9%
Good	37.1	32.6	43.4	46.6	16.9	15.9
Fair	19.4	16.0	24.0	25.0	40.7	45.0
Poor	4.0	2.3	9.7	5.1	22.0	21.3
Very Poor	4.0	0.6	4.6	2.3	10.2	16.3
Don't Know	--	--	2.3	1.7	--	--
Bases:	175	175	175	176	177	160

Q2A "Can you think of any disadvantages — things you don't like — about living in your area of the city?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
No	54.9%	58.2%	46.9%	36.4%	61.6%	73.1%	37.1%	64.4%
Yes	45.1	41.2	52.0	61.4	37.1	26.3	61.8	34.4
Bases:	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
No	54.3%	52.0%	48.0%	56.8%	15.8%	32.5%
Yes	45.1	48.0	50.3	42.6	82.5	66.3
Bases:	175	175	175	176	177	160

Q2B "If 'Yes', what are they?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Dirt/Litter	6.4%	5.5%	14.3%	3.7%	4.6%	2.2%	38.1%	14.5%
Air Pollution	3.8	5.5	3.3	--	10.8	2.2	33.3	4.8
Street Disrepair	7.7	11.0	34.1	38.0	6.2	8.7	12.4	32.3
Deterioration of Area	12.8	21.9	23.1	18.5	4.6	4.3	8.6	6.5
Traffic	10.3	21.9	9.9	15.7	29.2	4.3	4.8	12.9
Odors	26.9	5.5	1.1	1.9	4.6	--	1.0	1.6
Public Transportation	5.1	6.8	2.2	10.2	16.9	17.4	1.0	11.3
Crime	9.0	4.1	3.3	2.8	4.6	8.7	1.0	4.8
Noise	5.1	12.3	7.7	6.5	9.2	4.3	2.9	14.5
Undesirable People	7.7	5.5	7.7	2.8	3.1	--	2.9	11.3
Juvenile Delinquency	2.6	1.4	2.2	--	--	--	4.8	3.2
Loud Children	1.3	2.7	5.5	3.7	4.6	2.2	2.9	12.9
Poor Shopping	1.3	6.8	1.1	0.9	6.2	2.2	1.9	1.6
Bad Zoning	7.7	4.1	1.1	11.1	--	4.3	1.0	3.2
Sewage	--	--	1.1	14.8	--	--	3.8	1.6
Schools	--	1.4	2.2	0.9	7.7	--	1.0	--
Dogs	--	1.4	2.2	5.6	1.5	4.3	1.0	--
Water Pollution	--	2.7	3.3	--	--	--	4.8	3.2
Freeway Disrepair	--	--	2.2	0.9	--	--	--	--
High Rents	1.3	--	--	--	1.5	2.2	--	1.6
Other	2.6	6.8	9.9	7.4	10.8	37.0	6.7	8.1
Bases:	78	73	91	108	65	46	105	62

Q28 CONTINUED

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Dirt/Litter	16.5%	3.6%	9.1%	14.7%	15.8%	22.6%
Air Pollution	22.8	2.4	22.7	--	11.6	--
Street Disrepair	16.5	29.8	3.4	4.0	15.1	18.9
Deterioration of Area	8.9	11.9	11.4	13.3	16.4	34.0
Traffic	11.4	14.3	14.8	6.7	10.3	11.3
Odors	5.1	1.2	6.8	1.3	4.1	1.9
Public Transportation	1.3	7.1	6.8	10.7	10.3	2.8
Crime	2.5	2.4	4.5	10.7	13.0	16.0
Noise	2.5	11.9	5.7	2.7	4.1	7.5
Undesirable People	2.5	6.0	5.7	6.7	4.8	13.2
Juvenile Delinquency	--	--	6.8	10.7	8.9	8.5
Loud Children	1.3	1.2	2.3	4.0	5.5	1.9
Poor Shopping	3.8	2.4	--	2.7	8.2	0.9
Bad Zoning	8.9	2.4	4.5	2.7	0.7	0.9
Sewage	6.3	14.3	1.1	4.0	2.1	--
Schools	1.3	1.2	2.3	6.7	2.1	--
Dogs	3.8	3.6	--	1.3	3.4	0.9
Water Pollution	2.5	2.4	1.1	--	--	--
Freeway Disrepair	--	1.2	1.1	--	0.7	--
High Rents	--	--	1.1	1.3	--	1.9
Other	8.9	19.0	2.3	5.3	3.4	6.6
Base:	79	84	88	75	146	106

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(a) Crime

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	11.6%	15.3%	11.4%	9.1%	17.1%	3.4%	11.8%	8.9%
Somewhat Serious	23.1	19.8	18.9	11.4	12.6	9.1	20.6	25.6
Not Serious	60.7	56.5	68.0	76.7	69.7	86.9	65.9	63.9
Don't Know	4.6	8.5	1.7	2.8	0.6	0.6	1.8	1.7
Bases:	173	177	173	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Serious	14.3%	9.7%	16.0%	14.2%	45.2%	40.6%
Somewhat Serious	13.7	10.9	22.9	28.4	28.8	28.1
Not Serious	68.0	78.3	57.1	53.4	23.7	27.5
Don't Know	4.0	1.1	4.0	4.0	2.3	3.8
Bases:	175	175	175	176	177	160

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(b) Water pollution

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	12.1%	16.9%	15.4%	10.8%	13.7%	4.6%	43.5%	12.8%
Somewhat Serious	10.4	13.0	14.9	13.1	11.4	7.4	15.3	10.0
Not Serious	70.5	50.8	58.3	65.9	68.0	86.3	31.8	72.8
Don't Know	6.9	19.2	11.4	10.2	6.9	1.7	9.4	4.4
Bases:	173	177	173	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Serious	22.3%	14.3%	18.3%	10.8%	11.9%	8.8%	
Somewhat Serious	10.9	11.4	17.1	13.1	11.9	5.0	
Not Serious	64.0	70.9	54.9	62.5	65.5	66.3	
Don't Know	2.9	3.4	9.7	13.6	10.7	20.0	
Bases:	175	175	175	176	177	160	

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(c) Air pollution

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	38.2%	25.4%	40.0%	9.7%	32.6%	7.4%	68.8%	22.2%
Somewhat Serious	32.9	32.2	26.3	9.7	31.4	23.4	18.2	22.8
Not Serious	26.6	37.9	32.6	77.3	36.0	68.0	10.6	54.4
Don't Know	2.3	4.5	1.1	3.4	--	1.1	2.4	0.6
Bases:	173	177	173	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Serious	31.4%	9.7%	49.7%	23.9%	34.5%	15.6%
Somewhat Serious	14.3	12.0	26.9	24.4	24.9	14.4
Not Serious	52.6	77.7	19.4	45.5	38.4	64.4
Don't Know	1.7	0.6	4.0	6.3	2.3	5.6
Bases	175	175	175	176	177	160

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(d) Deterioration of streets, parks, sewerage, utilities, public buildings, etc.

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	4.6%	7.3%	30.9%	34.1%	10.9%	-- %	25.3%	6.1%
Somewhat Serious	18.5	11.9	26.9	31.8	16.6	4.0	22.4	26.7
Not Serious	74.6	76.8	41.1	33.0	72.0	96.0	48.8	64.4
Don't Know	2.3	4.0	1.1	1.1	0.6	--	3.5	2.8
Bases:	173	177	173	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Serious	11.4%	15.4%	22.9%	14.2%	26.6%	28.1%
Somewhat Serious	19.4	14.9	20.6	21.0	37.9	21.9
Not Serious	68.0	69.7	55.4	63.6	29.4	48.1
Don't Know	1.1	--	1.1	1.1	6.2	1.9
Bases:	175	175	175	176	177	160

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(e) Deterioration of shopping centers, stores, homes, industrial buildings, etc.

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	4.6%	3.4%	12.6%	6.3%	6.9%	0.6%	11.8%	5.6%
Somewhat Serious	10.4	11.9	22.3	21.0	15.4	1.7	16.5	17.8
Not Serious	83.8	81.4	61.7	71.6	76.0	97.7	68.2	75.0
Don't Know	1.2	3.4	3.4	1.1	1.7	--	3.5	1.7
Bases:	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Serious	5.1%	3.4%	9.1%	10.2%	23.7%	35.6%
Somewhat Serious	10.9	9.7	7.4	19.3	35.6	19.4
Not Serious	82.9	86.3	82.9	68.2	36.2	44.4
Don't Know	1.1	0.6	0.6	1.7	4.5	0.6
Bases:	175	175	175	176	177	160

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(f) Racial tensions

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	8.1%	2.3%	6.3%	5.1%	7.4%	-- %	2.4%	3.9%
Somewhat Serious	15.6	4.0	5.1	6.3	12.0	5.7	5.3	9.4
Not Serious	73.4	90.4	86.9	86.4	80.0	92.6	90.0	85.0
Don't Know	2.9	3.4	1.7	2.3	0.6	1.7	2.4	1.7
Bases:	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Serious	1.7%	1.7%	8.6%	4.0%	20.3%	12.5%
Somewhat Serious	6.9	1.7	7.4	16.5	17.5	6.3
Not Serious	89.1	96.0	81.7	73.3	60.5	75.0
Don't Know	2.3	0.6	2.3	5.7	1.7	6.3
Bases:	175	175	175	176	177	160

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(g) High taxes

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	47.4%	37.9%	39.4%	40.3%	28.0%	28.0%	38.2%	17.2%
Somewhat Serious	20.8	15.3	21.1	23.9	21.1	24.6	21.2	22.8
Not Serious	25.4	28.8	33.7	29.5	48.0	46.9	32.9	45.6
Don't Know	6.4	18.1	5.7	6.3	2.9	0.6	7.6	14.4
Bases:	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Serious	40.0%	48.0%	38.9%	44.3%	66.7%	63.8%
Somewaht Serious	20.0	14.3	21.7	21.0	11.3	4.4
Not Serious	36.6	34.9	30.9	24.4	10.7	7.5
Don't Know	3.4	2.9	8.6	9.7	10.7	24.4
Bases:	175	175	175	176	177	160

Q3 "Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?"

(h) Inadequate public transportation

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Serious	8.7%	15.3%	12.0%	34.7%	24.6%	32.6%	9.4%	2.8%
Somewhat Serious	10.4	13.0	10.3	15.3	16.0	21.1	11.8	8.3
Not Serious	76.9	65.0	71.4	44.9	54.3	40.6	67.6	84.4
Don't Know	4.0	6.8	6.3	5.1	5.1	5.7	11.2	4.4
Bases:	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Serious	27.4%	29.1%	10.3%	13.1%	15.8%	3.1%
Somewhat Serious	15.4	14.3	16.6	10.8	21.5	6.9
Not Serious	47.4	47.4	66.9	69.3	59.3	85.0
Don't Know	9.7	9.1	6.3	6.3	3.4	3.8
Bases:	175	175	175	176	177	160

Q4A "Have you ever requested some authority or agency to take action concerning any community area problem?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	24.9%	18.1%	28.6%	22.7%	16.0%	10.3%	19.4%	15.0%
No	75.1	81.9	71.4	77.3	84.0	89.7	80.6	85.0
Bases:	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Yes	29.7%	22.3%	17.7%	23.3%	16.4%	13.8%
No	70.3	77.7	82.3	76.7	83.6	86.2
Bases:	175	175	175	176	177	160

Q4B "If 'Yes', what was the problem?"
#

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Juvenile Delinquency	30.2%	15.6%	14.0%	5.0%	17.9%	5.6%	9.1%	18.5%
Street Repair	9.3	--	26.0	22.5	3.6	--	9.1	3.7
Air Pollution	16.3	6.3	2.0	--	3.6	--	6.1	3.7
Vermin	2.3	6.3	4.0	7.5	3.6	5.6	12.1	18.5
Traffic/Speed	7.0	15.6	10.0	22.5	14.3	5.6	6.1	--
Utilities	7.0	6.3	10.0	2.5	7.1	--	6.1	14.8
Derelict Buildings	4.7	3.1	6.0	10.0	--	5.6	15.2	3.7
Theft	16.3	9.4	--	5.0	3.6	--	--	3.7
Sewage	--	--	2.0	10.0	--	22.2	6.1	--
Dogs	9.3	3.1	4.0	2.5	7.1	16.7	--	3.7
Parking	--	3.1	6.0	2.5	7.1	--	6.1	7.4
Taxes	2.3	3.1	10.0	2.5	--	5.6	3.0	--
Poor Transportation	--	3.1	2.0	7.5	--	--	3.0	--
Fire	--	--	--	--	--	--	3.0	3.7
Watter Pollution	--	--	--	--	--	5.6	--	--
Noise	--	3.1	6.0	7.5	--	--	--	3.7
Disrupting Transportation	--	3.1	--	--	3.6	--	--	--
Other	7.0	18.8	4.0	5.0	25.0	22.2	21.2	18.5
Bases:	43	32	50	40	28	18	33	27

Q4B CONTINUED

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Juvenile Delinquency	9.6%	7.7%	-- %	9.8%	17.2%	18.2%
Street Repair	21.2	17.9	9.7	19.5	3.4	9.1
Air Pollution	17.3	2.6	22.6	2.4	--	--
Vermin	13.5	7.7	9.7	12.2	24.1	4.5
Traffic/Speed	7.7	5.1	6.5	4.9	10.3	--
Utilities	5.8	10.3	9.7	7.3	6.9	4.5
Derelict Buildings	--	7.7	6.5	9.8	6.9	22.7
Theft	3.8	5.1	3.2	4.9	6.9	9.1
Sewage	3.8	17.9	19.4	7.3	3.4	4.5
Dogs	1.9	2.6	--	--	3.4	--
Parking	3.8	--	--	2.4	--	9.1
Taxes	1.9	2.6	--	2.4	--	--
Poor Transportation	1.9	--	--	2.4	10.3	9.1
Fire	--	--	3.2	--	6.9	--
Water Pollution	3.8	2.6	--	--	6.9	--
Noise	--	--	--	2.4	3.4	9.1
Disrupting Transportation	1.9	--	3.2	4.9	--	--
Other	7.7	10.3	6.5	7.3	10.3	9.1
Bases:	52	39	31	41	29	22

Q4C "If 'Yes', to whom did you actually make the request?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
City Hall	18.6%	25.0%	22.0%	27.5%	35.7%	33.3%	42.4%	29.6%
Police	53.5	37.5	22.0	20.0	35.7	33.3	18.2	22.2
Public Works	9.3	--	16.0	27.5	--	--	9.1	14.8
Health Department	2.3	3.1	8.0	5.0	3.6	11.1	9.1	3.7
Pollution Control Agency	7.0	3.1	4.0	--	--	--	3.0	11.7
Fire	--	3.1	4.0	2.5	--	--	--	--
Others	16.3	15.6	12.0	10.0	21.4	22.2	15.2	25.9
Bases:	43	32	50	40	28	18	33	27

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
City Hall	42.3%	25.6%	51.6%	26.8%	13.8%	22.7%
Police	19.2	25.6	6.5	12.2	27.6	36.4
Public Works	13.5	23.1	6.5	26.8	24.1	4.5
Health Department	15.4	10.3	9.7	12.2	10.3	9.1
Pollution Control Agency	3.8	--	--	--	--	--
Fire	--	--	3.2	--	10.3	4.5
Others	--	10.3	12.9	9.8	10.3	18.2
Bases:	52	39	31	41	29	22

Q5 "How long have you lived in this area of the city?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Less than 6 months	2.3%	6.2%	0.6%	0.6%	1.7%	1.7%	-- %	1.7%
6 months 1 year	2.9	2.8	1.1	0.6	2.3	4.0	1.8	1.7
1 - 2 years	6.9	12.4	5.1	5.1	6.3	8.0	1.8	6.7
3 - 5 years	7.5	15.8	8.0	7.4	16.0	7.4	3.5	13.3
6 - 10 years	15.6	9.0	16.6	19.9	23.4	29.1	8.2	10.0
11 - 15 years	15.0	13.6	15.4	18.8	13.1	24.0	14.7	11.7
16 - 20 years	12.1	9.6	14.3	14.8	13.1	16.0	10.6	10.0
21 - 25 years	10.4	7.9	8.6	8.5	8.0	4.6	11.8	11.7
26 - 30 years	11.0	3.4	7.4	2.8	4.6	1.7	11.8	6.1
Over 30 years	16.2	18.6	17.7	16.5	10.3	3.4	32.9	23.9
Bases:	173	177	175	176	175	175	175	175

Q5 CONTINUED

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Less than 6 months	8.6%	5.1%	0.6%	2.8%	1.1%	1.3%
6 months - 1 year	4.0	5.7	1.1	5.1	1.7	0.6
1 - 2 years	5.7	5.7	4.0	4.5	4.0	5.0
3 - 5 years	10.9	10.9	4.0	11.9	14.1	13.8
6 - 10 years	24.0	23.4	14.9	18.2	31.6	38.1
11 - 15 years	18.3	16.6	9.7	19.3	16.9	13.8
16 - 20 years	12.6	10.3	12.0	15.3	10.2	8.1
21 - 25 years	5.1	6.3	7.4	5.1	11.3	8.8
26 - 30 years	2.3	2.9	6.9	5.1	3.4	5.0
Over 30 years	5.7	9.1	36.6	10.2	1.7	5.0
Bases:	175	175	175	176	177	160

Q6A "Have you thought seriously about moving to another area, or not?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	28.3%	21.5%	29.7%	35.2%	21.7%	9.7%	39.4%	30.6%
No	71.7	78.5	70.3	64.8	78.3	90.3	60.6	69.4
Bases:	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Yes	20.0%	19.4%	29.7%	34.1%	45.8%	53.1%
No	80.0	80.6	70.3	65.9	54.2	46.9
Bases:	175	175	175	176	177	160

Q6B "If 'Yes', why is that?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Get better/bigger house	14.3%	26.3%	11.5%	11.3%	28.9%	35.3%	16.4%	23.6%
Move to suburbs	28.6	15.8	11.5	14.5	5.3	--	28.4	20.0
This area deteriorated	10.2	15.8	17.3	16.1	7.9	5.9	17.9	7.3
Personal reasons	22.4	26.3	19.2	14.5	15.8	17.6	10.4	16.4
"Pollution"	4.1	--	1.9	--	--	--	20.9	--
Better school district	10.2	--	5.8	6.5	13.2	5.9	9.0	--
New/clean area	--	--	7.7	11.3	10.5	--	1.5	9.1
Get smaller house/apartment	--	--	15.4	9.7	2.6	--	4.5	14.5
Crime	--	--	--	--	--	--	--	--
Racial tensions	10.2	--	--	3.2	2.6	5.9	--	7.3
Noise	4.1	5.3	5.8	3.2	2.6	5.9	1.5	3.6
Cheaper area/less taxes	--	7.9	1.9	6.5	5.3	17.6	3.0	--
Public transportation	6.1	--	--	4.8	5.3	5.9	4.5	3.6
"Vague"	2.0	--	9.6	1.6	2.6	--	1.5	--
Traffic	--	--	1.9	--	--	--	1.5	--
Closer to city center	4.1	7.9	--	3.2	--	--	1.5	1.8
Bases:	49	38	52	62	38	17	67	55

Q6B CONTINUED

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Get better/bigger house	8.6%	14.7%	21.2%	15.0%	24.7%	11.8%
Move to suburbs	17.1	5.9	11.5	13.3	9.9	1.2
This area deteriorated	14.3	26.5	13.5	10.0	14.8	28.2
Personal reasons	11.4	17.6	7.7	16.7	12.3	8.2
"Pollution"	17.1	--	7.7	1.7	2.5	1.2
Better school district	--	--	3.8	1.7	6.2	8.2
New/clean area	5.7	5.9	7.7	10.0	8.6	21.2
Smaller house/apartment	8.6	5.9	5.8	13.3	--	--
Crime	2.9	--	1.9	6.7	19.8	7.1
Racial tensions	--	2.9	--	3.3	7.4	4.7
Noise	2.9	2.9	1.9	1.7	3.7	4.7
Cheaper area/less taxes	5.7	23.5	1.9	3.3	3.7	10.6
Public transportation	--	2.9	1.9	1.7	2.5	--
"Vague"	--	--	3.8	3.3	1.2	2.4
Traffic	--	2.9	3.8	1.7	3.7	--
Closer to city center	2.9	2.9	--	--	--	--
Bases:	35	34	52	60	81	85

Q7A "Is there air pollution in your area of the city at any time during the year, or not?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	69.4%	58.8%	73.7%	25.0%	62.9%	27.4%	88.2%	39.4%
No	28.3	40.7	25.1	73.9	36.6	72.0	11.8	59.4
Don't know	2.3	0.6	1.1	1.1	0.6	0.6	--	1.1
Bases:	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Yes	48.0%	20.6%	74.9%	45.5%	72.3%	33.1%
No	51.4	79.4	24.0	52.3	25.4	65.6
Don't know	0.6	--	1.1	2.3	2.3	1.3
Bases:	175	175	175	176	177	160

Q7B "If 'Yes,' when do you notice it the most: during the daytime; at nighttime; during the week; on weekends; during some months of the year; or just when?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Day	10.8%	17.3%	9.3%	13.6%	11.8%	12.5%	26.0%	22.5%
Morning	12.5	29.8	10.9	15.9	30.0	41.7	7.3	12.7
Afternoon	5.8	17.3	7.0	2.3	10.9	6.3	2.7	7.0
Evening	21.7	5.8	27.9	6.8	17.3	12.5	14.0	8.5
Weekdays	3.3	--	0.8	--	0.9	--	1.3	1.4
Weekends	--	1.0	--	--	0.9	--	0.7	1.4
Spring	0.8	--	3.9	6.8	--	2.1	--	2.8
Summer	46.7	36.5	14.7	20.5	29.1	37.5	20.0	21.1
Fall	6.7	8.7	5.4	6.8	4.5	29.2	2.0	5.6
Winter	5.8	15.4	3.1	2.3	10.0	8.3	1.3	2.8
Still air	1.7	3.8	0.8	--	--	--	--	--
Breeze from _____	15.8	2.9	18.6	18.2	3.6	2.1	4.0	--
"Weather"	6.7	2.9	6.2	13.6	2.7	2.1	7.3	5.6
When plant does _____	--	--	0.8	--	--	--	--	--
Occasional	2.5	12.5	5.4	13.6	8.2	8.3	1.3	8.5
Not any more	--	--	0.8	--	--	--	--	--
Most of the time	6.7	5.8	9.3	9.1	10.0	8.3	27.3	7.0
Don't know	0.8	5.8	3.1	4.5	0.9	2.1	1.3	--
Bases:	120	104	129	44	110	48	150	71

Q7B CONTINUED

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Day	15.5%	19.4%	14.5%	17.5%	18.8%	32.1%
Morning	17.9	5.6	8.4	15.0	25.8	17.0
Afternoon	3.6	2.8	10.7	8.8	7.8	15.1
Evening	20.2	13.9	21.4	13.8	10.2	3.8
Weekdays	1.2	--	1.5	1.3	3.1	3.8
Weekends	--	--	--	--	1.6	--
Spring	1.2	--	--	1.3	0.8	--
Summer	--	16.7	17.6	7.5	10.2	22.6
Fall	--	2.8	1.5	5.0	3.9	7.5
Winter	4.8	11.1	2.3	6.3	0.8	7.5
Still air	--	--	--	--	1.6	1.9
Breeze from _____	3.6	2.8	--	5.0	4.7	--
"Weather"	1.2	5.6	9.2	7.5	26.6	9.4
When plant does _____	1.2	5.6	--	--	1.6	--
Occasional	1.2	8.3	1.5	5.0	3.1	1.9
Not any more	1.2	--	--	--	1.6	1.9
Most of the time	25.0	22.2	17.6	11.3	8.6	13.2
Don't know	1.2	11.1	5.3	6.3	1.6	3.8
Bases:	84	36	131	80	128	53

Q8 "What do the words 'air pollution' mean to you? Please answer 'Yes' or 'No' to the following. Do they mean...?"

		Portland		Kansas City		Cincinnati		Buffalo	
		Test	Control	Test	Control	Test	Control	Test	Control
A.	Smoke or dust								
	Yes	86.1%	74.6%	78.9%	80.7%	88.0%	88.6%	92.9%	88.9%
	No	11.0	19.8	19.4	15.3	10.9	10.9	7.1	9.4
	Don't know	2.9	5.6	1.7	4.0	1.1	0.6	--	1.7
B.	Haze or fog								
	Yes	65.9	60.5	40.6	42.0	64.0	56.0	55.9	38.3
	No	29.5	33.3	54.9	54.5	34.9	43.4	43.5	57.8
	Don't know	4.0	6.2	4.6	3.4	1.1	0.6	0.6	3.9
C.	Irritation of the eyes								
	Yes	73.4	57.1	63.4	54.5	72.0	86.9	64.1	66.7
	No	23.7	39.0	34.9	39.2	26.9	12.6	33.5	29.4
	Don't know	2.9	4.0	1.7	6.3	1.1	0.6	2.4	3.9
D.	Nose or throat irritation								
	Yes	72.8	59.3	62.3	58.0	69.1	84.6	68.8	66.1
	No	23.7	36.7	34.9	38.1	30.3	14.9	28.8	30.0
	Don't know	3.5	4.0	2.9	4.0	0.6	0.6	2.4	3.9
E.	Noticeable odors								
	Yes	82.7	71.8	85.1	66.5	81.7	78.9	81.8	76.1
	No	16.8	26.0	13.1	30.7	17.7	20.0	17.6	21.7
	Don't know	0.6	2.3	1.7	2.8	0.6	1.1	0.6	2.2
	Bases:	173	177	175	176	175	175	175	175

Q8 CONTINUED

		Tampa		Philadelphia		San Francisco	
		Test	Control	Test	Control	Test	Control
A.	Smoke or dust						
	Yes	88.0%	86.3%	84.0%	84.7%	72.3%	67.5%
	No	10.9	10.9	11.4	11.9	21.5	23.8
	Don't know	1.1	2.9	4.6	3.4	6.2	8.8
B	Haze or fog						
	Yes	47.4	42.9	65.7	59.7	67.8	51.9
	No	47.4	52.6	29.7	36.9	25.4	38.1
	Don't know	5.1	4.6	4.6	3.4	6.8	10.0
C.	Irritation of the eyes						
	Yes	76.6	66.9	68.6	71.9	63.3	62.5
	No	20.0	30.3	24.0	23.3	29.9	27.5
	Don't know	3.4	2.9	7.4	5.7	6.8	10.0
D.	Nose or throat irritation						
	Yes	71.4	69.1	63.4	67.6	46.3	55.6
	No	24.0	24.0	29.1	23.9	45.8	30.6
	Don't know	4.6	6.9	7.4	8.5	7.9	13.8
E.	Noticeable odors						
	Yes	72.0	62.3	82.9	65.9	87.6	41.9
	No	24.6	33.7	12.0	27.8	7.3	48.1
	Don't know	3.4	4.0	5.1	6.3	5.1	10.0
	Bases:	175	175	175	176	177	160

Q8F "Could you describe in your own words just what some of these 'odors' smell like?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
"Chemical"	12.6%	7.9%	18.1%	5.1%	49.0%	36.2%	24.5%	20.4%
Don't know/Can't describe	7.0	10.2	25.5	18.8	13.3	15.9	14.4	13.1
"Rotten"	23.8	2.4	4.7	0.9	10.5	4.3	5.8	2.9
Eggs/Sulphur	17.5	23.6	12.1	1.7	14.0	10.1	22.3	13.1
Sewage	9.1	2.4	9.4	17.1	9.1	4.3	7.2	11.7
Oil/Petroleum	8.4	11.0	10.1	6.0	4.9	3.6	17.3	17.5
"Burning"	3.5	15.7	8.1	10.3	6.3	13.8	11.5	13.9
Burning Hides/Flesh	18.9	--	1.3	0.9	--	--	0.7	0.7
Trash/Garbage	2.8	3.9	3.4	17.9	2.1	1.4	5.8	7.3
Fertilizer	0.7	1.6	2.7	1.7	4.2	2.2	0.7	1.5
Exhaust	4.2	11.8	3.4	6.0	3.5	10.9	0.7	27.0
Fishy	1.4	--	0.7	--	2.1	--	1.4	2.9
Sweet/Soapy	--	--	1.3	0.9	10.5	2.2	1.4	--
Rubber	--	0.8	3.4	3.4	2.1	0.7	5.8	5.8
Tar/Asphalt	4.9	0.8	--	3.4	6.3	3.6	2.9	0.7
None here	4.2	9.4	2.0	8.5	1.4	7.2	3.6	1.5
Rotted Vegetables	0.7	1.6	8.7	0.9	--	--	0.7	0.7
Plastic	--	--	4.0	--	1.4	--	0.7	0.7
"Metallic"	0.7	3.1	1.3	--	--	--	2.9	0.7
Skunk	--	--	1.3	--	--	--	--	0.7
"Medicinal"	--	0.8	--	--	--	0.7	0.7	2.2
Vague	1.4	6.3	3.4	3.4	3.5	2.9	4.3	5.1
Bases:	143	127	147	117	143	138	139	137

Q8F CONTINUED

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
"Chemical"	10.3%	8.3%	14.5%	9.5%	5.2%	4.5%
Don't know/can't describe	10.3	13.8	23.4	18.1	15.5	14.9
"Rotten"	8.7	7.3	8.3	4.3	30.3	3.0
Eggs/Sulphur	11.9	13.8	9.7	5.2	5.8	4.5
Sewage	22.2	16.5	10.3	6.9	18.1	10.4
Oil/Petroleum	4.8	14.7	25.5	19.0	6.5	13.4
"Burning"	12.7	10.1	5.5	9.5	5.8	11.9
Burning Hides/Flesh	0.8	--	--	--	11.6	1.5
Trash/Garbage	4.0	6.4	4.1	8.6	3.9	10.4
Fertilizer	11.9	2.8	3.4	--	1.3	--
Exhaust	6.3	18.3	4.8	16.4	0.6	22.4
Fishy	7.9	7.3	2.8	1.7	7.1	4.5
Sweet/Soapy	0.8	0.9	0.7	--	1.9	--
Rubber	0.8	2.8	2.1	0.9	1.3	1.5
Tar/Asphalt	--	--	1.4	0.9	--	--
None here	2.4	5.5	0.7	2.6	0.6	1.5
Rotted Vegetables	0.8	0.9	2.1	3.4	0.6	1.5
Plastic	--	--	--	--	--	--
"Metallic"	--	--	--	0.9	0.6	3.0
Skunk	--	--	--	--	0.6	1.5
"Medicinal"	--	--	--	--	--	--
Vague	5.6	10.1	4.1	9.5	3.2	10.4
Bases:	126	109	145	116	155	67

Q8G "If 'Yes', which one of these 'odors' do you smell most often in your area of the city?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Rotten	26.6%	2.4%	4.0%	-- %	6.3%	3.6%	5.8%	2.2%
Don't know	6.3	9.4	26.2	18.8	11.2	13.0	7.9	2.9
"Chemical"	4.9	5.5	13.4	4.3	37.1	18.1	15.1	10.2
Eggs/Sulphur	10.5	17.3	8.1	1.7	9.1	5.1	16.5	2.9
Oil/Petroleum	2.8	7.9	7.4	4.3	2.8	2.2	10.8	5.8
Sewage	4.9	0.8	7.4	17.1	7.0	3.6	5.0	5.1
"Burning"	3.5	16.5	6.0	10.3	3.5	7.2	10.1	5.1
Burning Hides/Flesh	25.9	--	1.3	--	--	--	0.7	2.2
Exhaust	3.5	11.8	2.7	7.7	2.1	8.7	1.4	24.1
None here	5.6	10.2	1.3	8.5	0.7	34.8	2.2	5.1
Trash/Garbage	1.4	3.9	2.7	15.4	--	0.7	4.3	5.1
Rotted Vegetables	--	1.6	8.1	0.9	--	--	0.7	0.7
Fertilizer	--	--	2.0	--	--	0.7	0.7	--
Tar/Asphalt	2.1	--	--	2.6	4.9	1.4	2.9	--
Fishy	0.7	--	--	--	--	--	--	--
Sweet/Soap	0.7	--	--	--	6.3	0.7	1.4	--
Rubber	--	--	0.7	1.7	1.4	--	3.6	2.2
"Metallic"	0.7	3.1	2.0	--	--	--	1.4	0.7
Skunk	--	0.8	2.0	--	--	--	--	--
Plastic	--	--	1.3	--	--	--	0.7	--
"Medicinal"	--	0.8	--	--	--	0.7	0.7	1.5
Vague	0.7	7.1	3.4	3.4	3.5	2.2	3.6	4.4
Bases:	143	127	149	117	143	138	139	137

Q8G CONTINUED

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Rotten	4.8%	1.8%	8.3%	2.6%	31.6%	3.0%
Don't know	1.6	3.7	21.4	9.5	11.0	7.5
"Chemical"	4.0	1.8	11.0	4.3	0.6	3.0
Eggs/Sulphur	2.4	2.8	9.0	1.7	2.6	1.5
Oil/Petroleum	2.4	1.8	21.4	8.6	1.9	9.0
Sewage	4.0	4.6	8.3	2.6	10.3	6.0
"Burning"	3.2	2.8	5.5	6.9	7.1	11.9
Burning Hides/Flesh	0.8	--	--	--	9.0	1.5
Exhaust	3.2	7.3	4.1	12.1	1.3	20.9
None here	4.0	13.8	0.7	5.2	3.2	6.0
Trash/Garbage	0.8	4.6	3.4	5.2	3.9	10.4
Rotted Vegetables	0.8	0.9	2.1	1.7	0.6	1.5
Fertilizer	6.3	0.9	2.8	--	0.6	--
Tar/Asphalt	--	--	1.4	0.9	--	--
Fishy	3.2	2.8	2.1	0.9	4.5	4.5
Sweet/Soap	--	--	--	--	0.6	--
Rubber	--	--	2.1	--	0.6	1.5
"Metallic"	--	--	--	0.9	0.6	3.0
Skunk	--	--	--	--	0.6	1.5
Plastic	--	--	--	--	--	--
"Medicinal"	--	--	--	--	--	--
Vague	--	2.8	4.1	6.9	1.9	9.0
Bases:	126	109	145	116	155	67

Q9A "In your area of the city, does odor pollution bother you very much, some, or not at all?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Very much	16.2%	4.0%	21.7%	3.4%	13.1%	0.6%	21.2%	3.3%
Some	49.7	40.7	49.1	29.0	53.7	24.0	50.6	38.9
Not at all	32.9	52.0	28.0	66.5	33.1	74.3	28.2	57.8
Don't know	1.2	3.4	1.1	1.1	--	1.2	--	--
Bases	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Very much	10.9%	4.6%	28.6%	4.0%	26.6%	5.6%
Some	29.1	13.1	39.4	36.9	51.4	28.8
Not at all	58.9	81.1	30.3	56.3	21.5	61.9
Don't know	1.1	1.1	1.7	2.8	0.6	3.8
Bases:	175	175	175	176	177	160

Q9B "If 'Very much' or 'Some', could you tell me where this/these odor(s) originate, that is, who or what causes them?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Chemical Plant	12.3%	-- %	47.6%	1.8%	69.2%	23.3%	41.8%	7.9%
Packing House	37.7	--	--	--	--	--	0.8	--
"Factories"	10.5	17.7	7.3	8.8	16.2	7.0	11.5	15.8
Steel Company	--	--	29.8	--	--	--	47.5	1.3
Oil Refinery	0.9	--	29.0	--	0.9	--	9.8	1.3
"Traffic"	9.6	44.3	8.1	10.5	2.6	25.6	2.5	28.9
Swamp/River/Bay	2.6	3.8	0.8	3.5	--	--	11.5	1.3
Dump/Incinerator	7.9	6.3	1.6	40.4	1.7	7.0	5.7	13.2
Rendering Plant	21.9	--	--	1.8	--	--	1.6	--
Sewage	--	--	3.2	17.5	2.6	4.7	--	9.2
Fertilizer Plant	4.4	--	1.6	--	1.7	--	0.8	--
Stockyards	9.6	--	1.6	1.8	--	--	0.8	2.6
Others	--	--	--	7.0	5.1	7.0	1.6	2.6
Coal Smoke/Coke	--	--	0.8	--	0.9	--	5.7	1.3
Plastics Plant	--	--	0.8	--	8.5	2.3	--	1.3
Crematorium	--	1.3	--	1.8	--	--	2.5	--
Grain Processing	--	--	3.2	1.8	--	--	1.6	--
Distillery	0.9	--	0.8	--	0.9	--	--	--
Paper Mill	3.5	32.9	0.8	--	--	--	--	1.3
Paint Factory	--	--	--	--	4.3	--	--	--
"Weather"	2.6	2.5	0.8	--	--	--	--	--
Rubber Plant	0.9	1.3	--	--	--	2.3	--	1.3
Lumber Mill	0.9	3.8	--	--	--	--	--	--
Bases:	114	79	124	57	117	43	122	76

Q9B CONTINUED

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Chemical Plant	10.0%	-- %	12.6%	-- %	-- %	-- %
Packing House	--	3.2	2.5	1.4	80.4	1.8
"Factories"	21.4	3.2	30.3	5.6	1.4	5.5
Steel Company	1.4	--	4.2	--	--	--
Oil Refinery	--	--	18.5	6.9	--	--
"Traffic"	15.7	25.8	10.1	30.6	2.9	34.5
Swamp/River/Bay	18.6	22.6	0.8	--	9.4	1.8
Dump/Incinerator	4.3	9.7	3.4	4.2	10.9	14.5
Rendering Plant	1.4	--	2.5	--	--	--
Sewage	10.0	12.9	5.0	6.9	5.8	1.8
Fertilizer Plant	15.7	6.5	1.7	--	--	--
Stockyards*	10.0	--	0.8	--	--	--
Others	10.0	12.9	1.7	12.5	--	5.5
Coal Smoke/Coke	--	--	5.0	--	--	--
Plastic Plant	--	--	--	--	--	--
Crematorium	2.9	--	3.4	--	1.4	--
Grain Processing	--	--	--	--	1.4	--
Distillery	1.4	--	1.7	--	1.4	--
Paper Mill	--	--	0.8	--	--	--
Paint Factory	--	--	--	--	--	--
"Weather"	--	--	--	2.8	--	5.5
Rubber Plant	--	--	0.8	--	--	--
Lumber Mill	--	--	--	1.4	--	--
*in Tampa=Chicken Farms						
Bases:	70	31	119	72	138	55

Q10 "Which of the following statements do you think best describes the general "ODOR" pollution in your area of the city in recent years?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Not serious	19.7%	32.8%	18.9%	55.1%	27.4%	79.4%	24.7%	62.8%
Becoming more serious	24.3	45.2	16.6	8.0	24.0	12.6	25.3	15.6
Becoming less serious	11.6	1.7	12.6	8.5	10.3	--	2.9	1.7
Continuously serious	19.1	5.6	15.4	5.1	9.7	1.7	30.0	7.2
Occasionally serious	24.3	11.3	36.0	21.6	28.6	6.3	17.1	11.7
Don't know	1.2	3.4	0.6	1.7	--	--	--	1.1
Bases:	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Not serious	57.1%	77.1%	21.1%	51.7%	14.7%	65.0%
Becoming more serious	16.0	9.7	32.6	25.6	18.6	21.3
Becoming less serious	0.6	3.4	5.7	1.1	11.3	--
Continously serious	12.0	2.3	24.0	6.3	29.4	3.8
Occasionally serious	14.3	7.4	16.6	15.3	24.9	9.4
Don't know	--	--	--	--	1.1	0.6
Bases:	175	175	175	176	177	160

(Q11-Q15 are based on those answering everything but "Not Serious" in Q10)

Q11 "Which one of the following statements do you think best describes the efforts that are being made to control odor pollution in your area?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
No effort to control	7.2%	10.9%	9.9%	13.9%	16.5%	27.8%	17.2%	16.4%
Very little effort to control	12.9	25.2	22.5	8.9	16.5	16.7	19.5	16.4
Some effort to control	40.3	33.6	43.0	43.0	42.5	33.3	47.7	41.8
Great deal of effort to control	12.2	0.8	15.5	17.7	14.2	2.8	8.6	4.5
Don't know	27.3	29.4	7.7	12.7	10.2	19.4	7.0	17.9
Bases:	139	119	142	79	127	36	128	67

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
No effort to control	26.7%	22.5%	25.4%	34.1%	33.8%	26.8%
Very little effort to control	14.7	10.0	1.6	24.7	17.9	28.6
Some effort to control	41.3	45.0	35.2	22.4	26.5	14.3
Great deal of effort to control	12.0	10.0	1.6	4.7	2.6	5.4
Don't know	5.3	12.5	36.2	14.1	17.9	23.2
Bases:	75	40	138	85	151	56

Q12 "Do you feel that more money should be spent to control odor pollution in your area, or not?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	68.3%	61.3%	58.5%	38.0%	72.4%	55.6%	86.7	73.1
No	16.5	15.1	20.4	41.8	17.3	36.1	5.5	10.4
Don't know	15.2	23.5	21.1	20.3	10.2	8.3	7.8	16.4
Bases:	139	119	142	79	127	36	128	67

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Yes	74.7%	75.0%	73.9%	56.5%	83.4%	64.3%
No	14.7	20.0	11.6	29.4	7.9	14.3
Don't know	10.6	5.0	14.5	14.1	8.6	21.4
Bases:	75	40	138	85	151	56

Q13 "When offensive odors from outside sources get into your home, what do you do, if anything, to reduce or eliminate them?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Nothing	46.8%	45.4%	48.6%	26.6%	39.4%	36.1%	33.6%	22.4%
Close house	23.7	14.3	19.7	25.3	21.3	19.4	29.7	46.3
Spray	16.5	16.8	18.3	16.5	13.4	16.7	15.6	9.0
Deodorizers	12.2	6.7	12.0	8.9	18.1	5.6	7.0	7.5
Scrub/clean	12.2	1.7	4.9	2.5	7.9	2.8	7.8	6.0
Air conditioner	--	1.7	2.1	3.8	5.5	5.6	1.6	1.5
Burn a candle	0.7	6.7	2.8	2.5	2.4	--	--	1.5
Open up the house	0.7	2.5	1.4	1.3	2.4	--	1.6	--
Fans/ventilators	0.7	2.5	2.1	3.8	0.8	8.3	2.3	1.5
No problems	7.9	10.1	4.2	7.6	10.2	2.8	12.5	11.9
Bases:	139	119	142	79	127	36	128	67

Q13 CONTINUED

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Nothing	38.7%	32.5%	31.2%	32.9%	35.8%	41.1%
Close house	12.0	12.5	32.6	11.8	25.8	12.5
Spray	14.7	17.5	15.9	22.4	25.2	25.0
Deodorizers	20.0	15.0	7.2	3.5	20.5	14.3
Scrub/clean	2.7	--	2.9	2.4	21.2	14.3
Air conditioner	18.7	22.5	0.7	8.2	--	--
Burn a candle	1.3	--	0.7	1.2	0.7	--
Open up the house	--	--	1.4	1.2	0.7	1.8
Fans/ventilators	--	2.5	1.4	1.2	--	1.8
No problem	5.3	7.5	12.3	14.1	7.3	10.7
Bases:	75	40	138	85	151	56

Q14A "Do you own or are you purchasing this home (apartment or townhouse)?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	85.6%	77.4%	83.1%	79.7%	80.3%	94.4%	76.6%	70.1%
No	14.4	31.9	14.8	13.9	18.9	5.6	21.1	22.4
Don't know	--	0.8	--	--	--	--	--	1.5
Bases	139	119	142	79	127	36	128	67

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Yes	85.3%	85.0%	82.6%	78.8%	37.7%	14.3%
No	13.3	15.0	15.2	16.5	61.6	80.4
Don't know	-	-	--	1.2	--	1.8
Bases	75	40	138	85	151	56

Q14B "If 'Yes,' do you feel that odor pollution has reduced the value of your home property in any way, or not?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	21.8%	7.6%	16.1%	12.7%	13.7%	-- %	34.7%	14.9%
No	63.0	82.3	70.3	82.5	81.4	97.1	54.1	74.5
Don't know	15.1	10.1	13.6	4.8	4.9	2.9	11.2	10.6
Bases:	119	79	118	63	102	34	98	47

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Yes	20.3%	14.7%	20.2%	6.0%	26.3%	-- %
No	56.3	82.4	64.9	73.1	57.9	62.5
Don't know	4.7	2.9	14.0	19.4	10.5	37.5
Bases:	64	34	114	67	57	8

Q14C "If 'Yes', what do you feel some of these bad effects upon your property may be?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Potential buyers not like smell	57.7%	83.3%	63.2%	50.0%	42.9%	-- %	23.5%	-- %
Ruins paint/leaves film	7.7	16.7	--	--	21.4	--	52.9	28.6
Can't use yard	3.8	--	15.8	--	--	--	2.9	--
Don't go out/house run down	3.8	--	--	--	7.1	--	2.9	14.3
Kills plants	--	--	--	--	--	--	--	--
"Lowers value"	--	--	15.8	--	21.4	--	8.8	57.1
Others	--	--	--	12.5	--	--	--	--
Don't know	11.5	--	5.3	37.5	7.1	--	--	--
Bases:	26	6	19	8	14	--	34	7

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Potential buyers not like smell	30.8%	40.0%	56.5%	-- %	80.0%	-- %
Ruins paint/leaves film	7.7	--	4.3	50.0	--	--
Can't use yard	7.7	20.0	--	--	6.7	--
Don't go out/house run down	--	--	8.7	--	--	--
Kills plants	7.7	--	--	--	--	--
"Lowers value"	23.1	40.0	13.0	50.0	6.7	--
Others	--	--	--	--	--	--
Don't know	7.7	--	13.0	--	--	--
Bases:	13	5	23	4	15	--

Q15 "Have you ever seriously considered moving away from here because of odor pollution in the air?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	19.4%	6.7%	14.1%	6.3%	7.1%	-- %	28.1%	22.4%
No	79.1	92.4	85.9	89.9	92.9	97.2	71.9	74.6
Don't know	1.4	0.8	--	3.8	--	2.8	--	3.0
Bases:	139	119	142	79	127	36	128	67

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Yes	13.3%	12.5%	21.0%	9.4%	15.2%	23.2%
No	84.0	87.5	79.0	90.6	82.8	75.0
Don't know	2.7	--	--	--	2.0	1.8
Bases:	75	40	138	85	151	56

Q16A "Are there any stores or shopping areas in your city where you would like to go shopping but do not do do so because of odor pollution?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Yes	1.2%	2.8%	1.1%	1.1%	1.1%	3.4%	0.6%	1.1%
No	98.8	96.6	98.9	97.2	98.3	96.6	99.4	98.3
Don't know	--	0.6	--	1.7	0.6	--	--	0.6
Bases:	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Yes	2.9%	3.4%	2.3%	2.8%	4.0%	3.8%
No	96.0	96.6	96.6	96.6	96.0	96.3
Don't know	1.1	--	1.1	0.6	--	--
Bases:	175	175	175	176	177	160

Q16B "If 'Yes', which stores or shopping areas are these?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Downtown	--	40.0%	50.0%	--	50.0%	16.7%	100.0%	50.0%
Near River/Bay	--	20.0	--	--	--	--	--	--
Others local - too small to be meaningful								
Bases:	2	5	2	2	2	6	1	2

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Downtown	--	66.7%	75.0%	40.0%	--	16.7%
Near River/Bay	--	--	--	40.0	--	50.0
Others local - too small to be meaningful						
Bases:	5	6	4	5	7	6

Q17A "At the place where you work — if you're employed away from home — does odor pollution bother you much, some, or not at all?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Very much	2.3%	3.4%	5.7%	7.4%	2.3%	5.7%	8.8%	4.4%
Some	5.8	6.8	12.6	13.6	8.0	14.9	12.9	9.4
Not at all	38.2	24.9	31.4	34.1	45.7	36.0	31.8	28.9
Don't know	1.2	1.1	--	1.1	--	0.6	--	0.6
Not employed	52.6	63.8	49.7	43.8	44.0	42.3	44.1	56.7
Bases:	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Very much	5.1%	5.7%	4.6%	5.1%	1.1%	3.1%
Some	10.9	10.3	10.9	9.7	11.3	7.5
Not at all	46.3	42.3	27.4	38.6	47.5	40.0
Don't know	0.6	--	1.1	--	2.8	1.3
Not employed	37.1	41.7	56.0	44.9	37.3	46.9
Bases:	175	175	175	176	177	160

Q17B "If 'Very much' or 'Some', how does it bother you — in what ways? Any other ways?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Smells bad	57.1%	61.1%	59.4%	67.6%	61.1%	69.4%	43.2%	64.0%
Eye irritation	--	11.1	12.5	10.8	22.2	13.9	13.5	4.0
Choking feeling	21.4	--	15.4	13.5	--	--	13.5	12.0
Dust/dirt	14.3	11.1	12.5	10.8	5.6	8.3	10.8	8.0
Sinus worse	7.1	5.6	6.3	13.5	5.6	5.6	5.4	4.0
Throat irritation	7.1	--	3.1	2.7	5.6	--	8.1	12.0
Headache	--	5.6	6.3	--	--	--	10.8	--
Nose irritation	--	--	--	--	11.1	2.8	--	4.0
Cough	--	--	--	2.7	5.6	2.8	--	8.0
Others	--	11.2	3.1	2.7	--	5.6	8.1	--
Bases:	14	18	32	37	18	36	37	25

Q17B CONTINUED

		Tampa		Philadelphia		San Francisco	
		Test	Control	Test	Control	Test	Control
	Smells bad	75.0%	67.9%	55.6%	57.7%	63.6%	64.7%
	Eye irritation	--	10.7	18.5	19.2	18.2	5.9
	Choking feeling	--	3.6	14.8	3.8	--	--
	Dust/dirt	3.6	10.7	7.4	7.7	9.1	11.8
	Sinus worse	3.6	10.7	7.4	3.8	9.1	11.8
	Throat irritation	7.1	--	--	--	--	--
	Headache	7.1	--	--	--	--	--
	Nose irritation	3.6	3.6	--	--	9.1	11.8
	Cough	--	--	--	3.8	--	--
	Others	10.7	10.7	7.4	--	4.5	--
	Bases:	28	28	27	26	22	17

Q18A "What kind of work are you now doing?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Professional/Technical	3.5%	4.0%	1.7%	1.7%	6.9%	9.7%	5.3%	5.6%
Managers/Self-Employed	3.5	0.6	4.6	5.7	7.4	15.4	0.6	1.1
Clerical/Sales	14.5	13.6	13.1	11.4	16.0	16.0	8.2	10.0
Skilled/Service	17.9	8.5	25.1	30.1	20.0	15.4	28.8	15.6
Semi-Skilled/Operatives	7.5	5.6	4.6	5.7	3.4	2.3	9.4	11.7
Laborers/Agricultural Workers	--	1.1	--	--	1.1	--	0.6	--
Student	5.8	--	--	2.3	1.1	--	--	--
Military	--	--	--	--	--	--	--	--
Retired	8.1	26.6	21.7	8.0	6.3	2.3	10.6	15.6
Housewife	36.4	38.4	26.3	28.4	35.4	36.0	20.0	34.4
Unemployed	2.3	0.6	1.1	1.1	1.7	0.6	--	0.6
Refused	0.6	1.1	0.6	0.6	0.6	0.6	0.6	--
Bases:	173	177	175	176	175	175	175	175

Q18A CONTINUED

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Professional/Technical	12.6%	10.9%	0.6%	14.2%	2.3%	4.4%
Managers/Self-Employed	9.1	10.9	2.9	3.4	2.8	5.0
Clerical/Sales	10.9	16.0	6.3	10.8	15.3	8.1
Skilled/Service	9.1	9.7	29.1	13.6	23.7	18.1
Semi-Skilled/Operatives	17.1	9.7	4.0	7.4	17.5	16.3
Laborers/Agricultural Workers	1.7	1.1	0.6	0.6	0.6	--
Student	1.7	0.6	--	0.6	--	0.6
Military	--	--	0.6	1.1	--	--
Retired	1.1	10.9	12.0	9.7	7.3	15.6
Housewife	24.0	25.7	26.3	33.0	23.2	23.8
Unemployed	--	--	1.7	1.1	3.4	5.0
Refused	0.6	0.6	5.7	1.7	0.6	0.6
Bases:	175	175	175	176	177	160

Q18B "In what kind of business or industry is this done?

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Professional	0.6%	0.6%	0.6%	2.8%	-- %	1.1%	1.8%	0.6%
Restaurant/Bar	0.6	1.7	1.7	2.3	0.6	--	0.6	--
Medical	2.3	4.5	2.3	4.5	5.1	3.4	4.7	2.8
Publishing	--	1.7	2.3	0.6	0.6	1.7	--	0.6
Construction	3.5	1.1	2.9	7.4	0.6	4.6	1.8	2.8
Banking/Insurance/Finance	1.7	2.8	3.4	--	4.0	2.3	1.2	1.7
Communications	1.7	1.7	--	2.3	0.6	0.6	--	--
Retail Sales	5.8	2.3	6.9	6.8	4.0	6.9	3.5	4.4
Food Production	2.9	0.6	1.7	2.8	1.1	2.3	1.2	1.1
Transportation	5.2	3.4	2.9	4.0	2.9	1.7	3.5	3.3
Wholesale Sales	1.2	1.7	0.6	1.1	4.0	1.7	0.6	--
Automotive	1.7	0.6	1.1	2.3	1.7	1.1	2.4	1.7
Services (Laundry, Hair dressing, etc.)	3.5	2.8	4.0	7.4	4.6	2.9	0.6	3.9
Agriculture	--	0.6	--	--	--	--	--	--
Factory (Manufacturing)	1.7	2.8	5.7	8.0	14.3	12.0	6.5	6.7
Heavy Industry	4.0	1.7	8.6	1.1	3.4	9.1	14.7	5.0
Education	4.0	0.6	1.1	1.1	2.9	4.0	2.4	1.1
Electronics	1.2	0.6	--	0.6	0.6	--	--	--
Utilities	0.6	--	1.1	0.6	1.1	0.6	0.6	2.2
Recreation	0.6	--	--	0.6	--	0.6	1.2	0.6
Government	3.5	1.1	2.9	5.1	2.3	--	5.3	5.0
Military	--	--	--	--	--	--	--	--
Refused	--	1.1	--	1.1	--	2.3	--	0.6
Bases:	173	177	175	176	175	175	175	175

Q18B CONTINUED

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Professional	5.7%	0.6%	-- %	4.0%	0.6%	1.9%
Restaurant/Bar	2.9	2.3	0.6	0.6	1.1	3.8
Medical	2.9	4.0	1.7	1.1	5.6	3.1
Publishing	--	0.6	1.1	0.6	--	0.6
Construction	5.1	6.9	4.0	6.3	5.6	3.1
Banking/Insurance/Finance	2.9	1.1	0.6	1.7	0.6	--
Communications	--	1.1	--	0.6	1.7	0.6
Retail Sales	3.4	8.0	4.0	5.1	4.0	3.1
Food Products	4.0	0.6	2.9	--	1.7	1.3
Transportation	4.0	3.4	1.7	1.1	3.4	5.0
Wholesale Sales	0.6	3.4	0.6	0.6	1.1	1.3
Automotive	1.1	1.7	1.1	--	0.6	--
Services	2.9	4.6	5.7	5.7	9.6	12.5
Agricultural	3.4	1.7	--	--	--	--
Factory (Manufacturing)	3.4	1.1	9.1	2.8	3.4	3.8
Heavy Industry	4.0	1.7	3.4	2.3	--	2.5
Education	5.7	4.6	1.1	6.8	4.5	2.5
Electronics	--	1.1	0.6	--	--	--
Utilities	4.0	2.3	--	0.6	0.6	0.6
Recreation	0.6	--	0.6	--	0.6	--
Government	3.4	2.9	4.0	8.5	16.4	5.0
Military	1.7	2.3	--	--	--	0.6
Refused	--	--	1.7	0.6	--	1.3
Bases:	175	175	175	176	177	160

Q19 "Would you tell me approximately what age group you are in?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
18 - 24	7.5%	6.2%	2.9%	2.8%	8.0%	4.0%	3.5%	2.2%
25 - 34	14.5	14.7	10.9	11.4	15.4	13.7	11.2	10.6
35 - 44	16.2	6.8	17.1	17.6	16.0	29.1	18.2	17.2
45 - 54	16.2	14.7	13.1	27.8	21.1	28.0	26.5	22.8
55 - 64	23.1	14.7	26.3	19.9	21.7	18.3	24.1	21.1
65 and over	20.2	40.7	29.7	19.3	17.7	6.9	14.7	25.6
Refused	2.4	2.4	--	1.1	--	--	1.8	0.6
Bases:	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
18 - 24	6.9%	2.9%	5.7%	2.3%	5.6%	1.9%
25 - 34	23.4	14.3	12.0	16.5	16.9	13.8
35 - 44	25.1	25.1	12.6	22.2	25.4	18.1
45 - 54	19.4	21.1	25.1	21.6	25.4	21.3
55 - 64	15.4	20.6	20.6	18.2	16.4	18.8
65 and over	9.7	16.0	22.9	17.0	10.2	24.4
Refused	--	--	1.1	2.2	--	1.9
Bases:	175	175	175	176	177	160

Q20 "What is the highest grade of school you've completed?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
8th Grade or Less	14.5%	11.9%	25.1%	26.1%	12.6%	4.6%	13.5%	22.2%
Junior High	4.6	4.0	3.4	6.3	4.6	2.3	8.8	10.6
1 - 3 Years H.S.	10.4	9.6	16.6	15.3	9.7	5.1	14.7	21.7
H.S. Graduate	41.0	36.2	36.6	34.1	33.7	35.4	39.4	30.0
1 - 3 Years College	13.9	14.1	10.3	8.0	16.0	19.4	8.2	6.7
College Graduate	10.4	7.9	1.7	1.7	10.3	26.9	5.9	2.8
Post Graduate	0.6	1.1	1.1	0.6	5.7	3.4	0.6	0.6
Vocational	2.3	6.2	2.9	6.8	5.1	2.3	6.5	3.3
Refused	2.3	9.0	2.9	2.2	2.3	1.1	3.0	2.2
Bases:	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
8th Grade or Less	14.9%	14.3%	34.9%	10.2%	25.4%	35.0%
Junior High	7.4	5.1	5.7	4.0	7.9	5.0
1 - 3 Years H.S.	9.1	9.1	18.9	10.8	20.3	10.6
H.S. Graduate	38.9	28.0	33.1	39.2	31.1	22.5
1 - 3 Years College	14.3	17.1	5.1	9.7	10.7	16.9
College Graduate	5.1	12.0	0.6	14.8	1.7	4.4
Post Graduate	5.7	6.3	0.6	7.4	--	1.9
Vocational	2.9	5.7	0.6	1.7	2.3	2.5
Refused	1.7	2.3	1.2	2.8	--	1.9
Bases:	175	175	175	176	177	160

Q21 "How many persons, including yourself, live in this household?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
1	13.9%	19.3%	12.6%	8.5%	10.9%	4.0%	8.2%	7.8%
2	41.6	46.3	43.4	35.8	33.1	28.0	27.6	36.7
3	17.3	12.4	16.0	19.9	14.9	20.0	15.9	16.1
4	10.4	9.6	12.6	18.2	18.9	20.0	20.6	16.1
5	6.9	4.0	7.4	6.8	8.6	15.4	9.4	8.9
6	3.5	2.8	5.1	4.5	7.4	6.3	7.6	4.4
7	1.7	0.6	0.6	1.7	2.3	1.7	3.5	5.0
8	1.7	0.6	1.1	0.6	1.1	1.1	1.2	2.2
9	1.7	0.6	0.6	--	0.6	0.6	0.6	--
10	--	--	--	--	0.6	--	0.6	--
More than 10	--	--	--	--	--	--	0.6	0.6
Refused	1.2	3.4	0.6	4.0	2.3	2.9	4.1	2.3
Bases:	173	177	175	176	175	175	175	175

Q21 CONTINUED

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
1	5.7%	8.6%	7.4%	7.4%	11.9%	31.3%
2	33.7	31.4	33.7	25.6	19.2	31.9
3	17.1	18.9	21.7	17.0	28.2	11.9
4	22.9	18.9	15.4	22.2	9.6	8.1
5	10.3	13.7	12.0	10.2	11.3	5.6
6	5.7	4.6	5.1	8.5	6.2	5.0
7	2.3	0.6	2.3	3.4	6.2	1.9
8	2.3	2.3	--	1.1	2.8	1.9
9	--	--	--	--	1.1	--
10	--	--	--	0.6	2.8	0.6
More than 10	--	--	--	0.6	--	--
Refused	--	1.1	2.3	3.4	1.1	2.5
Bases:	175	175	175	176	177	160

Q22 "Considering your total yearly family income, what group would you say you're in?"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Under $5,000	24.3%	35.0%	33.7%	25.6%	19.4%	7.4%	18.2%	31.1%
$5,000 - $9,999	37.0	26.0	36.0	43.8	33.1	19.4	45.9	45.6
$10,000 - $14,999	23.1	12.4	18.3	21.0	24.0	30.3	20.0	12.2
$15,000 - $17,499	2.3	3.4	4.0	--	1.7	9.7	2.4	1.7
$17,500 - $19,999	0.6	2.3	--	0.6	2.3	2.9	2.4	0.6
$20,000 and over	1.2	0.6	1.1	--	7.4	16.0	1.2	--
Don't know	4.6	1.1	4.0	4.5	2.9	4.0	2.9	3.3
Refused	7.0	19.2	2.9	4.5	9.4	10.3	7.1	5.6
Bases:	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Under $5,000	17.1%	20.6%	26.9%	13.1%	35.6%	39.4%
$5,000 - $9,999	40.6	26.9	42.3	30.1	44.1	36.9
$10,000 - $14,999	16.6	19.4	10.9	18.8	11.3	8.1
$15,000 - $17,499	2.3	8.6	1.7	5.7	1.7	0.6
$17,500 - $19,999	1.7	4.0	--	4.5	--	--
$20,000 and over	6.3	7.4	--	6.3	--	1.3
Don't know	2.9	2.9	5.7	7.4	5.1	10.0
Refused	12.6	10.3	12.6	14.2	2.3	3.7
Bases:	175	175	175	176	177	160

Q23 "Sex"

	Portland		Kansas City		Cincinnati		Buffalo	
	Test	Control	Test	Control	Test	Control	Test	Control
Male	41.6%	34.5%	50.9%	49.4%	50.9%	46.3%	50.6%	47.8%
Female	58.4	65.5	49.1	50.6	49.1	53.7	49.4	52.2
Bases:	173	177	175	176	175	175	175	175

	Tampa		Philadelphia		San Francisco	
	Test	Control	Test	Control	Test	Control
Male	49.7%	50.3%	51.4%	48.9%	39.0%	49.4%
Female	50.3	49.7	48.6	51.1	61.0	50.6
Bases:	175	175	175	176	177	160

APPENDIX N

PUBLIC OPINION SURVEY QUESTIONNAIRES AND INSTRUCTIONS TO INTERVIEWERS

(1) "Instructions to Interviewers" Used in Interviewing Residents
(2) "Instructions to Interviewers" Used in Interviewing Businessmen
(3) Public Opinion Questionnaire Administered to Residents
(4) Public Opinion Questionnaire Administered to Businessmen

PUBLIC OPINION SURVEY OF ODOR POLLUTION PROBLEMS
Questionnaire for the General Public

Project No. 5702

INSTRUCTIONS TO INTERVIEWERS

This survey is basically a study of public opinion and attitudes concerning odor pollution (as a form of air pollution) problems in the communities in which they live. It is part of a nationwide study being done by Copley International Corporation for the National Air Pollution Control Administration.

However, we do not wish the sponsor of the survey to be known as this may tend to bias respondent answers. If a respondent persists in demanding to know who the sponsor is, tell him the sponsor can be revealed following completion of the interview, that we cannot tell him at the beginning of the interview because we do not want to influence his answers.

It will also be necessary in some cases to take definite steps to assure respondents that no one will contact them to buy anything. Also, that the information they give becomes part of a statistical summary and individual responses will not be exposed or revealed in any way.

What Numbers to Call: Each questionnaire will have a telephone number written on it. This is the only number you should call. Numbers should not be substituted.

Make all the necessary notations in the space provided on the questionnaire for the results to each call. Space is provided for recording data for an initial and five follow-up calls. When you have completed an interview make a check under "Interview Completed." Make a check under "Interview Not Completed" for each call for which the interview is not obtained.

Space is provided to record the best time to call in order to find the proper respondent at home. This information may be obtained from other members of the household who answer the call.

Space is also provided to record reasons why the interview was not completed, such as: no answer, disconnected, refused, language problem, etc.

Whom to Interview: Interviews should be split as evenly as possible between men and women. Make alternate interviews with the male head of the household and the wife of the head of household. Children, relatives and friends living in the household should not be interviewed. When there is only one head of household, such as a single man or single woman, a widow, a divorcee, etc., then interview that person.

Remember, when interviewing in households having both a man and a woman available as possible respondents, alternate your selection of respondents in order to maintain an approximate 50-50 ratio between men and women.

When to Call: Do not make any calls before 9 a.m. or after 9:30 p.m. unless you have been instructed to call back at a specific time. Interviews may be made on any day of the week.

It is suggested that you make at least half of your initial calls in the evening in order to contact working men and women more easily. Weekends are also good times for working people. Also, in order to balance your quota by sex you will have to make many follow-up calls in the evenings and on weekends.

In making your follow-up calls, select different times-of-day on different days. In other words, spread out the calls to afford a greater opportunity of catching respondents at home.

General Questionnaire Instructions: Questions are to be asked exactly as they are written. If a respondent indicates he does not understand a question, reread the question slowly.

Words and phrases which are underlined should be stressed. For instance, the major portion of the questionnaire is concerned with the particular area of the city in which the respondent lives, not the entire city as a whole. Therefore, in many questions the words your area of the city are underlined and should be stressed.

The study is concerned with major odor pollution problems. Be sure respondent does not misunderstand your questions. We are NOT interested in odors produced from cooking in his own kitchen, or from a neighbor who burns a pile of leaves once a year, or a neighbor boy who has an old car with a smoky exhaust, etc. We ARE interested in odors produced by factories, sewers, disposal areas, stockyards, large bodies of stagnant water, refineries, and any other industrial or natural source which is a recognized irritation to an area of the city. The size of the area affected can vary from as small as one or two square blocks up to the entire city.

On the front page of the questionnaire the telephone number will already have been written in. After you finish the interview fill in the respondent's name and address. Also write in the name of the city. After the interview is completed sign your name on the last page.

Read all questions slowly and clearly, placing emphasis on words or phrases which are underlined.

Q1 After this question is read, read each of the five alternative answers (do not read the "Don't Know"), emphasizing each one and pausing between each one. For instance: "Would you rate it....Excellent, Good, Fair, Poor, or Very Poor?"

Q2 On open-ended questions such as this it is permissible and desirable to probe for additional answers, using such phrases as: Can you think of any others; Do you recall any more; etc.

Q3 On this question read the three alternative answers slowly and carefully so the respondent can fix them in his mind. In some cases, it may be necessary to repeat the alternative answers for the first two or three parts of the question.

Q4 Probe to make answers as specific as possible. For instance, if they do not remember names, then try to determine what agency department or division they contacted.

Q7 Probe to see if respondent feels air pollution is worse in any particular month or months. Record which months are mentioned. Also record any mention of air pollution being worse during certain times of the day, such as mornings, afternoons, at night, etc.

Q8 Urge respondent to describe any odors in his own language. If more than one odor is described, determine which one he smells most often and draw a circle around it.

Q9 Probe to determine if respondent knows the specific origin of any odors mentioned. Try to get the specific name and location of industrial plants, business concerns, stockyards, etc.

Q10-Q12 Read the alternative answers slowly and carefully, repeating them if necessary.

Q13 This question refers to industrial odors, etc., and not to odors produced in the kitchen from cooking, or from a neighbor burning a pile of leaves, etc.

Q14 Record anything respondent feels has a bad effect upon his property due to odor pollution. Record all relationships mentioned regardless of whether they appear to be directly or indirectly related.

Q16 Use the name of the large, central city in this question. If you happen to be interviewing in a suburb do not use the suburb name. In this question we're interested in the extended urban trade area in which respondents could conceivably travel to shop.

Q17 Be sure to determine that respondent actually is employed away from his home and is not merely referring to pollution in the neighborhood of his home, before asking second part of question. We're only interested in the responses of those individuals employed away from home who also notice some degree of odor pollution at the place where they work.

Q18-Q22 These are personal questions needed to classify and analyze our data. Most people will readily give this information once the interviewer has established rapport and the respondent feels assured the interview is legitimate. However, there is always a small segment of the population who will refuse; do not push them to give this information if they are strongly inclined not to do so.

Finally, determine respondent's name and address and record this on the front page. Check the sex on question 23 and terminate the interview by thanking respondent for his time and opinions. Be sure to sign your name on the last page.

PUBLIC OPINION SURVEY OF ODOR POLLUTION PROBLEMS
Questionnaire for Businessmen

Project No. 5703

INSTRUCTIONS TO INTERVIEWERS

This survey is a study of the opinions and attitudes businessmen have concerning odor pollution (as a form of air pollution) in the area in which they operate or manage their business. It is part of a nationwide study being done by Copley International Corporation for the National Air Pollution Control Administration.

However, we do not wish the sponsor of the survey to be known as this may tend to bias respondent answers. If a respondent persists in demanding to know who the sponsor is, tell him the sponsor will be revealed following completion of the interview, that we cannot tell him at the beginning of the interview because we do not want to influence his answers.

It will also be necessary in some cases to take definite steps to assure a respondent that no one will contact him to buy anything. Also, that the information he gives will become part of a statistical summary and individual responses will not be exposed or revealed in any way.

What Numbers to Call: Each questionnaire will have a telephone number written on it, in addition to the name of the business firm and the street address. This particular business firm at this particular address is the only one we wish to contact. If the firm has changed its address and/or telephone number, contact your supervisor.

Make all the necessary notations in the space provided on the questionnaire for the results to each call. Space is provided for recording data for an initial and five follow-up calls. When you have completed an interview make a check under "Interview Completed." Make a check under "Interview Not Completed" for each call for which the interview is not obtained.

Space is provided to record the best time to call in order to find the proper respondent available. This information may be obtained from other members of the business form who answer your call.

Space is also provided to record reasons why the interview was not completed.

Whom to Interview: The respondent desired for this interview is that person who owns and/or manages the business and can be found on the premises at least part of the time, for instance, at least several days each week. On your initial call determine who this individual is and, if he's not in when you call, when you can call back to reach him.

When to Call: Call only when the establishment is open for business unless you have been instructed to make a return call at a specific time.

General Questionnaire Instructions: Questions should be asked exactly as they are written. If a respondent indicates he does not understand a question, repeat the question slowly.

Words and phrases which are underlined should be stressed. For instance, the major portion of the questionnaire is concerned with the particular area of the city in which the respondent has his business location, not in the entire city as a whole. Therefore, in many questions the words this area of the city are underlined and should be stressed.

The study is concerned with major odor pollution problems which the respondent feels may be affecting his business in some manner. Make sure the respondent does not misunderstand your questions. We are interested in odors produced by factories, sewers, disposal areas, stockyards, large bodies of stagnant water, refineries, and any other industrial or natural source which is a recognized irritation to an area of the city. The size of the area affected can vary from as small as one or two square blocks up to the entire city.

On the front page of the questionnaire the following data will already have been written in: phone number; street address; firm name. You are to write in the name of the city and the respondent's name after you have determined who the proper respondent is.

Read all questions slowly and clearly, placing emphasis on words and phrases which are underlined.

Q1 After this question is read, read each of the five alternative answers (do not read the "Don't Know), emphasizing each one and pausing between each one. For instance: "Would you rate it....Excellent, Good, Fair, Poor, or Very Poor?"

Q2 On open-ended questions such as this it is permissible and desirable to probe for additional answers, using such phrases as: Can you think of any others; Do you recall any more; etc.

Q3 On this question, read the three alternative answers slowly and carefully so the respondent can fix them in his mind. In some cases it may be necessary to repeat the alternative answers for the first two or three parts of the question.

Q4 Probe to make answers as specific as possible. For instance, if they do not remember names then try to determine what agency department or division they contacted.

Q7 Probe to see if respondent feels air pollution is worse in any particular month or months. Record which months are mentioned. Also record any mention of air pollution being worse during certain times of the day, such as mornings, afternoons, at night, etc.

Q8 Urge respondent to describe any bad odors in his own language. If more than one odor is described, determine which one he smells most often and draw a circle around it.

Q9 Probe to determine if respondent knows the specific origin of any odors mentioned. Try to get the specific name and location of industrial plants, business concerns, stockyards, etc.

Q10-Q12 Read the alternative answers slowly and carefully, repeating them if necessary.

Q13 This question refers to substantial industrial and business odors and not to odors which may be produced on the respondent's own premises.

Q14 Record anything respondent feels has a bad effect upon his business due to odor pollution. Record all relationships mentioned regardless of whether they appear to be directly or indirectly related. Probe carefully on this question to see if respondent can estimate by what amount his business has been hurt: reduced the number of customers by X%; caused a decrease in sales volume by X%; etc.

Finally, determine respondent's name, exact position with the business, and an exact description of the business. Record his name on the front page and enter the other information in Questions 16 and 17. Terminate the interview by thanking respondent for his time and opinions. Be sure to sign your name on the last page.

PUBLIC OPINION SURVEY OF ODOR POLLUTION PROBLEMS – General Public

U. S. Budget Bureau No. 85-S69031
Approval Expires 12/31/69

Project No. (C 2-5) _____

Area No. (C 6-7) _____

Case No. (C 8-11) _____

Respondent:

Phone No. _____

Street Address _____

City _____

Name _____

Record of Calls:

Call	Date	Time	Interview Completed	Interview Not Completed	Best Time to Find Respondent at Home	Reason If Not Completed
1st	____	____	( )	( )	_____	_____
2nd	____	____	( )	( )	_____	_____
3rd	____	____	( )	( )	_____	_____
4th	____	____	( )	( )	_____	_____
5th	____	____	( )	( )	_____	_____
6th	____	____	( )	( )	_____	_____

"Hello. I'm (Name) _____ with Copley International Corporation. I'm calling (long distance) on a study for a governmental agency concerning some local problems, and I need to talk to several (male/female) heads of the household in this area to get their opinions on several questions." (ESTABLISH IF SPEAKER IS THE RESPONDENT YOU SEEK. IF NOT, ASK IF RESPONDENT CAN BE CALLED TO THE PHONE.)

1) In general, how would you rate your area of the city as a place to live? Would you rate it....

_____ 1 Excellent _____ 2 Good _____ 3 Fair

_____ 4 Poor _____ 5 Very Poor _____ 6 Don't Know C12 _____

2) Can you think of any disadvantages – things you don't like – about living in your area of the city?

_____ 1 No _____ 2 Yes (ASK: WHAT ARE THEY?) C13 _____

_____

_____ C14 _____

_____

_____ C15 _____

3) Here are a few problems which different community areas are facing. How would you rate each of these for your area of the city today in terms of being serious, somewhat serious, or not serious?

	Serious	Somewhat Serious	Not Serious	Don't Know	
(a) Crime	1	2	3	4	C16
(b) Water pollution	1	2	3	4	C17
(c) Air pollution	1	2	3	4	C18
(d) Deterioration of streets, parks, sewerage, utilities, public buildings, etc.	1	2	3	4	C19
(e) Deterioration of shopping centers, stores, homes, industrial buildings, etc.	1	2	3	4	C20
(f) Racial tensions	1	2	3	4	C21
(g) High taxes	1	2	3	4	C22
(h) Inadequate public transportation	1	2	3	4	C23

4) Have you ever requested some authority or agency to take action concerning any community area problem?

1 Yes 2 No C24

(IF "Yes", ASK:)
What was the problem and to whom did you actually make the request?

Problem: C25

C26

Agency or Authority: C27

5) How long have you lived here, in this area of the city? C28

6) Have you thought seriously about moving to another area, or not?

1 Yes 2 No C29

(IF "Yes", ASK:)
Why is that? C30

C31

7) Is there air pollution in your area of the city at any time during the year, or not?

1 Yes (ASK FOLLOWING) 2 No (SKIP TO #8) C32

When do you notice it the most: during the daytime; at nighttime; during the week; on weekends; during some months of the year; or just when?

C33

C34

8) What do the words "air pollution" mean to you? (**Please answer "Yes" or "No" to the following.**) Do they mean ...?

	Yes	No	Don't Know	
(a) Smoke or dust	___ 1	___ 2	___ 3	C35 ___
(b) Haze or fog	___ 1	___ 2	___ 3	C36 ___
(c) Irritation of the eyes	___ 1	___ 2	___ 3	C37 ___
(d) Nose or throat irritation	___ 1	___ 2	___ 3	C38 ___
(e) Noticeable odors	___ 1	___ 2	___ 3	C39 ___

(IF "Yes" TO "e", ASK:)

Could you describe in your own words just what some of these "odors" smell like?

C40 ___

_____ C41 ___

Which one of these "odors" do you smell most often in your area of the city?

C42 ___

(PLEASE CIRCLE)

C43 ___

9) In your area of the city, does odor pollution bother you very much, some, or not at all?

___ 1 Very much ___ 2 Some ___ 3 Not at all ___ 4 Don't Know C44 ___

(If "Very much" OR "Some", ASK:)

Could you tell me where this/these odor(s) originate, that is, who or what causes them?

C45 ___

_____ C46 ___

C47 ___

10) Which one of the following statements do you think best describes the general "ODOR" pollution in your area of the city in recent years?

___ 1 Odor pollution has not been a serious problem. (If checked, skip to #16)

___ 2 Odor pollution has become a more serious problem each year.

___ 3 Odor pollution has become a less serious problem each year. C48 ___

___ 4 Odor pollution has continuously been a serious problem.

___ Odor pollution has occasionally been a serious problem.

11) Which one of the following statements do you think best describes the efforts that are being made to control odor pollution in this area?

___ 1 No effort to control odor pollution.

___ 2 Very little effort to control odor pollution. C49 ___

___ 3 Some effort to control odor pollution but not as much as it should.

___ 4 A great deal of effort to control odor pollution.

___ 5 Don't know.

12) Do you feel that more money should be spent to do a better job of controlling odor pollution in your area, or not?

_____ 1 Yes _____ 2 No _____ 3 Don't know C50 _____

13) When offensive odors from outside sources get into your home, what do you do, if anything, to reduce or eliminate them? _____ C51 _____

_____

_____ C52 _____

14) Do you own or are you purchasing this home (apartment or townhouse)?

_____ 1 Yes _____ 2 No _____ 3 Don't know C53 _____

(IF "Yes", ASK FOLLOWING. IF "No" OR "Don't know", SKIP TO #15.)
Do you feel that odor pollution has reduced the value of your home property in any way, or not?

_____ 1 Yes _____ 2 No _____ 3 Don't know C54 _____

(IF "Yes", ASK FOLLOWING. IF "No" OR "Don't know", SKIP TO #15.)
What do you feel some of these bad effects upon your property may be? _____ C55 _____

_____ C56 _____

_____

15) Have you ever seriously considered moving away from here because of odor pollution in the air? C57 _____

_____ 1 Yes _____ 2 No

16) Are there any stores or shopping areas in the greater _____ (name of city) area where you would like to go shopping but do not do so because of odor pollution? C58 _____

_____ 1 Yes _____ 2 No

(IF "Yes", ASK:)
Which stores or shopping areas are these? _____ C59 _____

_____ C60 _____

_____ C61 _____

17) At the place where you work – if you're employed away from home – does odor pollution bother you very much, some, or not at all?

_____ 1 Very much _____ 2 Some _____ 3 Not at all C62 _____

_____ 4 Don't know _____ 5 Not employed away from home

IF "Very much" OR "Some", ASK FOLLOWING:)

How does it bother you – in what ways? Any other ways? _____

_____ C63 _____

_____ C64 _____

_____

18) What kind of work are you now doing? In what kind of business or industry is this done? C65 _____

Kind of work: _____ C66 _____

Business or industry: _____ C67 _____

All of the information you've given us today will be kept strictly confidential. However, we do need to ask you several additional questions so the opinions of everyone we've talked with can be combined and analyzed statistically.

19) Would you tell me approximately what age group you are in. Is it . . .?

_____ 1 18-24 years
_____ 2 25-34 years
_____ 3 35-44 years
_____ 4 45-54 years
_____ 5 55-64 years
_____ 6 65 years or over

C68 _____

20) What is the highest grade of school you've completed? _____

_____ C69 _____

21) How many persons, including yourself, live in this household? _____

_____ C70 _____

22) Considering your total yearly family income, what group would you say you're in? Is it . . .?

_____ 1 Less than $5,000
_____ 2 $ 5,000 - $ 9,999
_____ 3 $10,000 - $14,999
_____ 4 $15,000 - $17,499
_____ 5 $17,500 - $19,999
_____ 6 $20,000 or more
_____ 7 Don't know
_____ 8 Refused

C71 _____

(INTERVIEWER RECORD)

23) Sex:

_____ 1 Male
_____ 2 Female

C72 _____

Interviewer's Name _____

Comments: _____

_____

_____

_____

_____

U.S. Budget Bureau No. 85-S69032
Approval Expires 12/31/69

PUBLIC OPINION SURVEY OF ODOR POLLUTION PROBLEMS - BUSINESSMEN

Project No. (C2-5) 5703

Area No. (C6-7) _____

Case No. (C8-11) _____

Respondent:

Phone No. _____

Street Address _____

Firm Name _____

City _____

Respondent Name _____

Record of Calls:

Call	Date	Time	Interview Completed	Interview Not Completed	Best Time to Find Respondent at Work	Reason If Not Completed
1st	____	____	( )	( )	_____	_____
2nd	____	____	( )	( )	_____	_____
3rd	____	____	( )	( )	_____	_____
4th	____	____	( )	( )	_____	_____
5th	____	____	( )	( )	_____	_____
6th	____	____	( )	( )	_____	_____

(CALL THE NUMBER LISTED ABOVE AND ASK TO SPEAK TO THE MANAGER. IF HE IS NOT IN OR IS BUSY, ASK WHEN WOULD BE THE BEST TIME TO CALL BACK.)

"Hello. I'm (Name) _____ with Copley International Corporation. I'm calling (long distance) on a study for a governmental agency on some local problems, and I need to get the opinion of the manager of this business on several questions. For instance ..."

1) In general, how would you rate this area of the city for your business?

C12 _____

Would you rate it ...

_____ 1 Excellent

_____ 2 Good

_____ 3 Fair

_____ 4 Poor

_____ 5 Very Poor

_____ 6 Don't Know

2) Can you think of any disadvantages – things you don't like – about operating your business in this area of the city?

_____ No (1) _____ Yes (ASK: WHAT ARE THEY?) (2) C13 _____

_____

_____ C14 _____

_____ C15 _____

3) Here are a few problems which different business areas are facing. How would you rate each of these for this area of the city today in terms of being serious, somewhat serious, or not serious?

	Serious	Somewhat Serious	Not Serious	Don't Know	
(a) Crime	_____ 1	_____ 2	_____ 3	_____ 4	C16 _____
(b) Water pollution	_____ 1	_____ 2	_____ 3	_____ 4	C17 _____
(c) Air pollution	_____ 1	_____ 2	_____ 3	_____ 4	C18 _____
(d) Deterioration of streets, parks, sewerage, utilities, public buildings, etc.	_____ 1	_____ 2	_____ 3	_____ 4	C19 _____
(e) Deterioration of shopping centers, stores, homes, industrial buildings, etc.	_____ 1	_____ 2	_____ 3	_____ 4	C20 _____
(f) Racial tensions	_____ 1	_____ 2	_____ 3	_____ 4	C21 _____
(g) High insurance premiums	_____ 1	_____ 2	_____ 3	_____ 4	C22 _____
(h) Inadequate parking facilities	_____ 1	_____ 2	_____ 3	_____ 4	C23 _____
(i) Inadequate public transportation	_____ 1	_____ 2	_____ 3	_____ 4	C24 _____

4) Have you ever requested some authority or agency to take action concerning any problem in this area of the city?

_____ Yes (1) _____ No (2) C25 _____

(IF "Yes", ASK:)

What was the problem and to whom did you actually make the request?

Problem: _____ C26 _____

_____ C27 _____

Agency or Authority: _____ C28 _____

5) How long have you operated a business in this are of the city? _____ C29 _____

6) Have you thought seriously about moving to another area, or not?

_____ Yes (1) _____ No (2) C30 _____

(IF 'Yes", ASK:)

Why is that? _____ C31 _____

_____ C32 _____

7) Is there air pollution in this area of the city at any time during the year, or not?

_____ 1 Yes (ASK FOLLOWING) _____ 2 No (SKIP TO #8) C33 _____

When do you notice it the most: during the daytime; at nighttime; during the week; on weekends; during some months of the year; or just when?

_____ C34 _____

_____ C35 _____

8) What do the words "air pollution" mean to you? Please answer "Yes" or "No" to the following. Do they mean...?

	Yes	No	Don't Know	
(a) Smoke or dust	_____ 1	2	3	C36 _____
(b) Haze or fog	_____ 1	2	3	C37 _____
(c) Irritation of the eyes	_____ 1	2	3	C38 _____
(d) Nose or throat irritation	_____ 1	2	3	C39 _____
(e) Noticeable odors	_____ 1	2	3	C40 _____

(IF "Yes" TO "e", ASK:)

Could you describe in your own words just what some of these "odors" smell like?

_____ C41 _____

_____ C42 _____

Which one of these "odors" do you smell most often in this area of the city? C43 _____
(PLEASE CIRCLE)

C44 _____

9) In this area of the city, does odor pollution effect your business very much, some, or not at all?

_____ 1 Very much _____ 2 Some _____ 3 Not at all _____ 4 Don't Know C45 _____

(IF "Very much" OR "Some", ASK:)

Could you tell me where this/these odor(s) originate, that is, who or what causes them?

_____ C46 _____

_____ C47 _____

_____ C48 _____

10) Which one of the following statements do you think best describes the general "ODOR" pollution in your area of the city in recent years?

_____ 1 Odor pollution has not been a serious problem? (If checked, skip to #16)

_____ 2 Odor pollution has become a more serious problem each year.

C49 _____

_____ 3 Odor pollution has become a less serious problem each year.

_____ 4 Odor pollution has continuously been a serious problem.

_____ 5 Odor pollution has occasionally been a serious problem.

11) Which one of the following statements do you think best describes the efforts that are being made to control odor pollution in this area?

_____ 1 No effort to control odor pollution.

C50 _____

_____ 2 Very little effort to control odor pollution.

_____ 3 Some effort to control odor pollution but not as much as it should.

_____ 4 A great deal of effort to control odor pollution.

_____ 5 Don't know.

12) Do you feel that more money should be spent to control odor pollution in this area, or not?

_____ 1 Yes

C51 _____

_____ 2 No

_____ 3 Don't know

13) When offensive odors from outside sources get into your business establishment, what do you do, if anything, to reduce or eliminate them? _____

_____ C52 _____

_____ C53 _____

14) Do you feel odor pollution has had a bad effect upon your business operations in any way, or not?

_____ 1 Yes _____ 2 No _____ 3 Don't know C54 _____

(IF "Yes", ASK:)

What do you feel some of these bad effects upon your business operations may be?

(PROBE!! Has this affected income? By what percentage, etc.?)

_____ C55 _____

_____ C56 _____

_____ C57 _____

15. Have you ever seriously considered moving your business away from this area because of odor pollution in the air?

_____ 1 Yes _____ 2 No C58 _____

16) What is your position with this business? C59 _____

Position: _____ C60 _____

Type of Business: _____ C61 _____

17) Including yourself, what is the total number of people who work in this establishment? ___ C62 _____

_____ C63 _____

Interviewer's Name: _____